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P.Q. SILICATES OF SODA



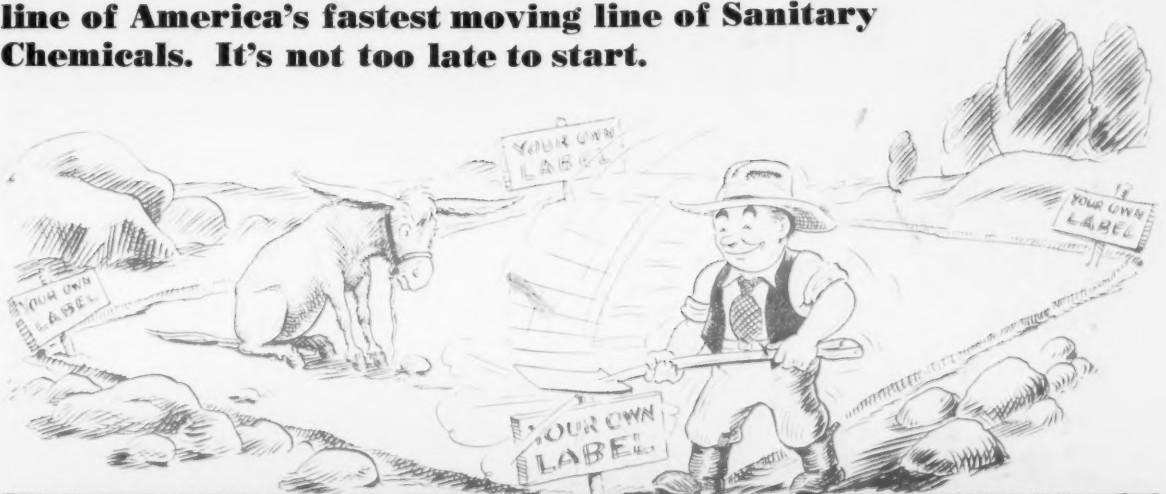
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ORGANIC CHEMICALS DEPARTMENT

FINE CHEMICALS DIVISION

WILMINGTON, DELAWARE

SOAP

Volume XII
Number 5

May, 1936



SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 75. Production Section begins on page 63.

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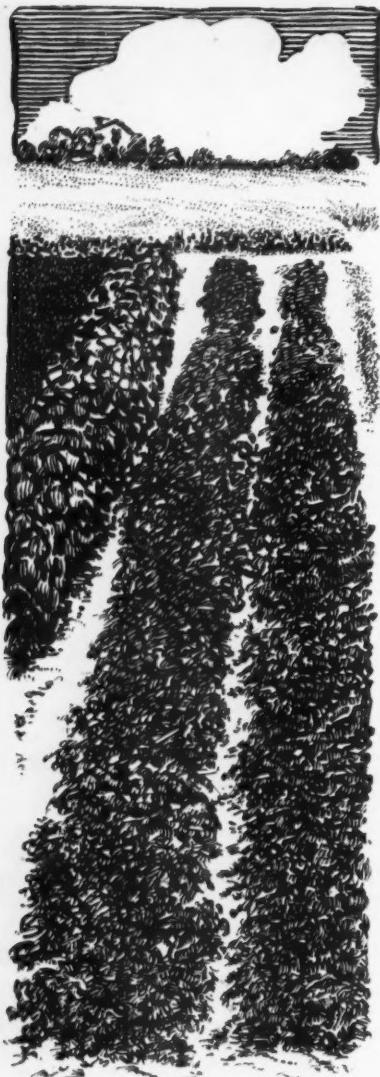
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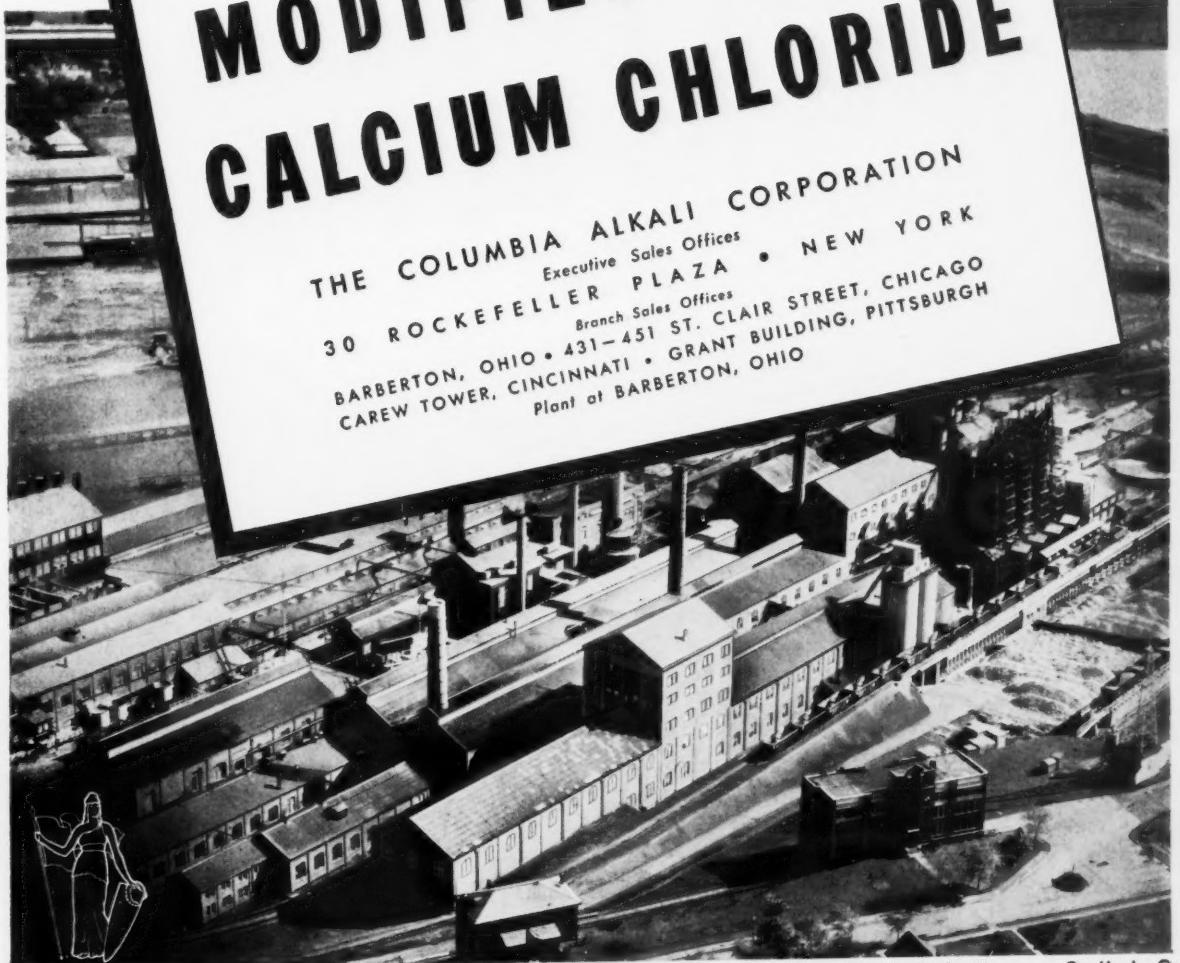
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...yet one
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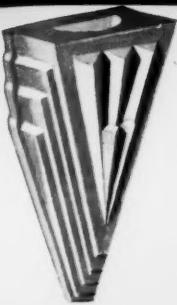
Perhaps you never realized it before, but the same laboratory that tests the prescription chemicals which are dispensed by thousands of pharmacists, is the same laboratory that controls the quality of Merck Chemicals for the Soap, Disinfectant and Insecticide Industries.

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TOGETHER—MAY IT EVER EXIST"
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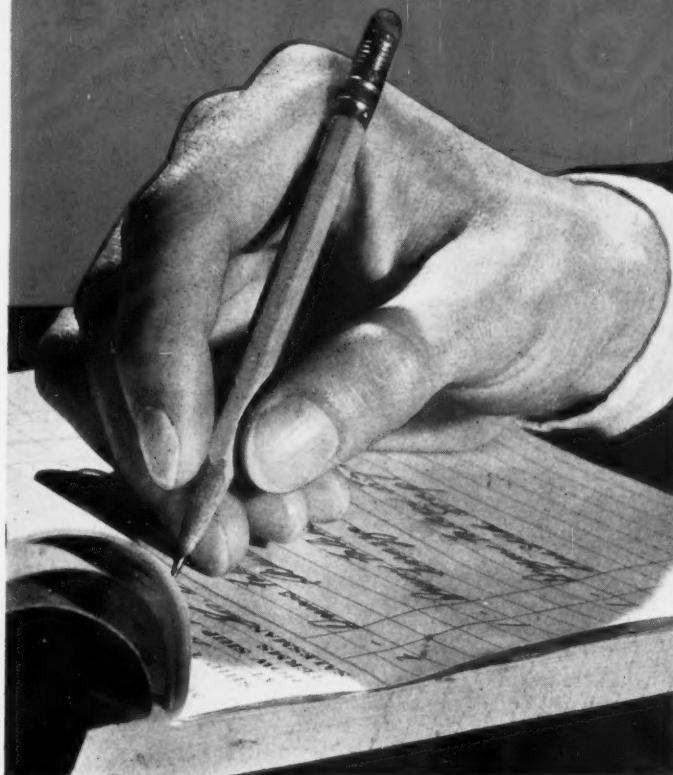
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A safe, concentrated, liquid soap to use on many types of floors. Contains a high soap content which gives it exceptional cleansing power, even when diluted.

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This soap is made especially for tile, terrazzo, and marble floors. Removes oil, grease and traffic marks quickly and easily, and leaves an attractive lustre on the floor.

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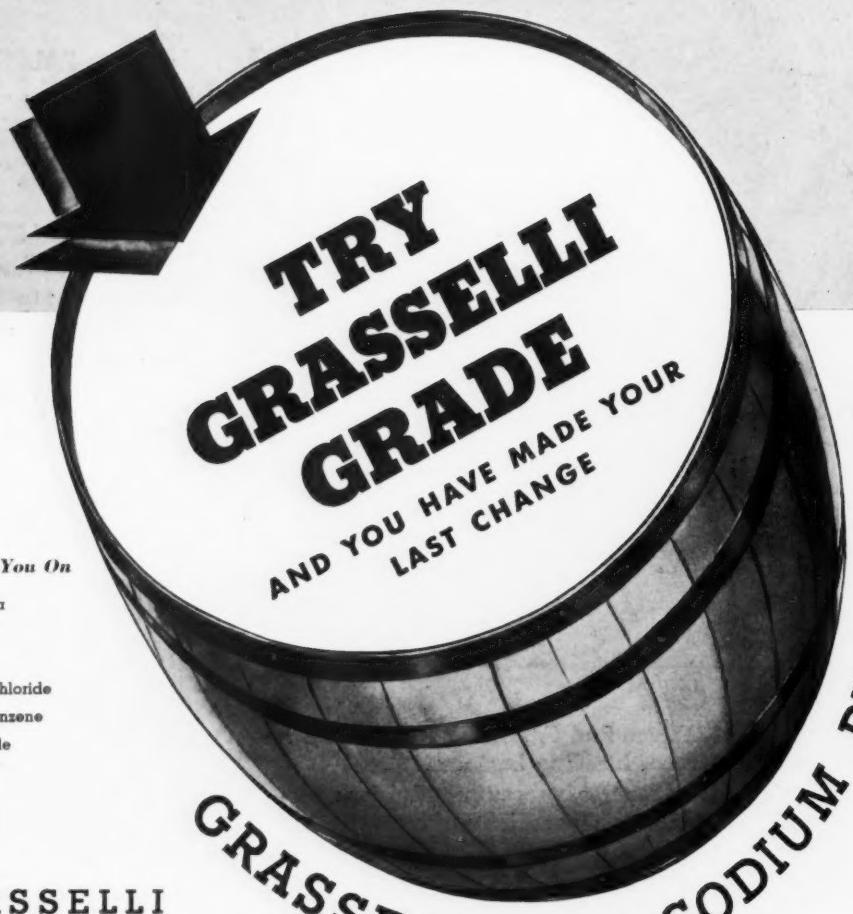
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Delightful odor. Excellent coverage in products containing kerosene, benzene, xylol.

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Universally acceptable. Distinctive, clean odor. Popular type.

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Powerful, flowery, lasting, fresh lilac character.

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Always popular. Sweet, fresh, clean odor.

**PERFUME OIL
ANTISEPTIC No. 41**

Imparts powerful antiseptic type odor. Clearly soluble. For Shampoo, Hand Soap, Powdered Soap, Specialty Soap.

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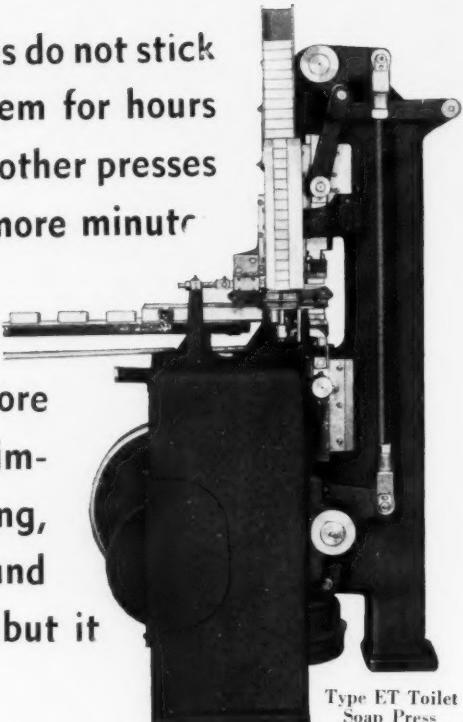


**"If the Press Isn't Toggle Operated,
I Wouldn't Have It At Any Price"**

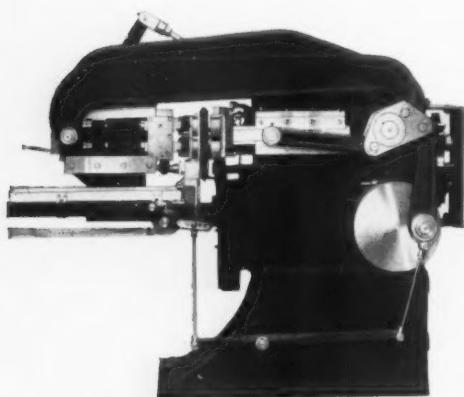
Says a great soap maker

JONES TOGGLE OPERATED PRESSES

cause the soap to cohere so that particles do not stick to the dies, making it possible to run them for hours without stops for cleaning. Such stops on other presses put the whole line out of production for more minutes per day than you will realize without adding them up. Again, dies which accumulate scrap press only a few cakes before they begin to lose their finish and clean impression. If run too long before cleaning, many cakes will have to be remilled and pressed again. To do this costs money, but it costs more in loss of sales to neglect it.



Type ET Toilet Soap Press



Type K Laundry Soap Press

Toggle Operated Presses obviate such losses. They operate at higher speed, have a longer productive life, and treble the life of dies. Their noiseless, efficient operation conserves the nerves of workers. It will pay you to replace your older models with

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R. A. JONES & COMPANY, INC.
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SOAP

As the Editor Sees It . . .

FROM a firm on the Pacific Coast, we have an extremely interesting communication. It is in the form of an inquiry received by them, which reads as follows: "We are looking for a filler lower priced than soda ash, used in making granulated soap. Have you anything to offer?" The manufacturer who received this enlightening inquiry states that it seems to them to indicate the direction of the wind in the soap industry today,—distinctly not toward quality improvement, but exactly the reverse. This trend is quite obviously to meet and beat, if possible, keener and keener competition, and is a direct outgrowth of the higher price for oils and fats.

Some years back when raw material prices were higher than today, somebody coined the expression that "the ideal of the manufacturer of cheap soap is to make a bar of water stand alone." Apparently, the water worked out well for a short time, but some very funny things happened when these cheap soaps were stored away and taken out for use a few weeks later. That the housewives took one look at the shrunken bars and shouted for the police is to put it mildly. Most of these soaps were sold by peddlers in the foreign quarters in a number of our leading industrial cities. It is a safe bet that the same peddler never covered the same territory twice.

And now here is a firm which is looking for something cheaper than soda ash for use in granulated soap. Our informant remarks in

this respect: "How about sand?" Yes, sand has possibilities, but may be that is also too expensive. Compared to water, its cost is extremely high. We will still cast our vote for water,—good old water!

LESS oils and fats were purchased by the American soap industry in 1935 than in 1934. The decline was something over six per cent. This drop in fat buying by soapers may or may not mean that less soap was produced in 1935. The general opinion seems to prevail in the soap industry that production was down as much as ten per cent in 1935 as compared with 1934. May be this were true, or may be the people who said it were just trying to fool their competitors. At any rate, analyzing the entire fat situation, based on the U. S. Bureau of Census figures recently issued, we would be inclined to hazard a guess that soap production for 1935 did not drop nearly as much as we have been led to believe.

If the heavy purchases of fats during the last quarter of 1934 mean anything, the total output of American soap kettles in 1935 was quite close to the level of 1934. Based on a study of the past ten years, we also feel that the census figures on fat consumption probably portray the picture in the soap industry with greater accuracy than do the Bureau of the Census figures on soap production. And we suspect that some soapers might be inclined to give the situation

a gloomy touch at a time like the present, for there seems to be little doubt that pound for pound of soap throughout the industry, the margin of profit is not what it was some time back.

Taking the entire fat consumption of the nation in 1935 of over four-and-a-half billion pounds, the soap industry used almost exactly one-third of this. In 1934, the soap kettle accounted for close to forty per cent of the total. However, there was a half-billion pound increase in total fat consumption in 1935,—an increase of close to twelve per cent. Practically all of this increase went into edible products. The soap industry took none of it. In the case of coconut oil, for example, the total consumption in 1935 was just about the same as in 1934, but the soap industry used one-third less, meaning that edible products made up the difference. Palm oil showed a precipitate drop in soap kettle consumption last year. Tallow, finding little or no outlet in edible channels, reached a peak in soap use in 1935, topping even the high figures of 1934.

The opinion seems to be quite general that high prices and taxes acted chiefly to depress the consumption of fats in the soap kettle last year, while in edible products, with a wider latitude in price, this was not the case as the figures show. The soap industry chooses to accept the explanation that high fat prices as reflected in higher soap prices, are directly responsible for the absence of a normal expansion in soap consumption. The drop in consumption of fats in soap, as compared with the marked increase in total fat consumption, lends support to this contention.

BACK in Moscow full of enthusiasm over the progress in the United States in toilet soaps and cosmetics, head of the most important soap trust in the Soviet, who incidentally happens to be the wife of an important Soviet official, has recommended to her countrymen in these industries that they study the American method of doing things. That it is quite flattering to have the American industry held up as a model, and to have it heralded as miles ahead of anything in Europe, goes without saying. However, our admiration for this lady of the Soviet is not stirred so much by her flattering references to American technical leadership, as by the cast-iron nerve of herself and her cohorts in requesting permission upon her arrival here to examine various and sundry American soap plants. Euro-

peans and Japanese seem to have an especial weakness for examining the inside of American factories. And apparently, some soapers are overawed by the idea that some foreigner of importance at home wants to see their plants,—and let them in. And probably these are the same soapers who refuse to let their machinery suppliers see new installations in operation for fear said machinery people might learn some of their secrets.

THE United States Supreme Court has refused to rule on the coconut oil excise tax at this time. The injunction of the Iowa Soap Company against the Bureau of Internal Revenue secured in the District Court at Des Moines, Iowa, will now be appealed to the U. S. Circuit Court of Appeals by the Government, and thence in time to the Supreme Court. It is believed that this will probably take a year, or many months at least. In the meantime, the coconut oil excise tax hangs in mid-air, law to some, but not to others, with its mixed up rulings from various District Courts throughout the country. For the average soaper, there is nothing to do but to keep on paying the tax, and to hope,—fond hope,—that some day if and when the law is thrown in the ash can by the Supreme Court, he will get his money back with interest.

WHEN business is on the upturn, new products can be introduced with advantage alike to manufacturer and the public. There is little inducement for a manufacturer to introduce new things during periods of depression when the public is not of a mind or has not the money to buy them. These were the expressed sentiments of a well-known and old time soap maker of Philadelphia as early this year he heralded 1936 as a year of increased public buying power, and placed the energies of his organization behind a new product, the introduction of which had been held up for several years to await what was considered a more opportune moment.

Words of wisdom! Many a fine product has gone down, never to come up, because it went to market at the wrong time. Reaching the buyers when they have money to spend and are in a mood to buy is just about two-thirds of the sales battle.

Textile Detergents

Fatty Alcohol Sulfates, Sulfonated Oils, Textile Soaps, and Other Textile Agents--Their Characteristics Discussed

By MARGARET J. HAUSMAN

SOAPS and special detergents play a vital part in many stages of textile manufacture. Inasmuch as they have been constantly growing more numerous and more complex as a class, it is important for the textile processor, or anyone connected with their use, to be as fully acquainted as possible with the variety of products now at his disposal. The function of any soap used in practically any stage in the manufacture of a textile is not as simple as might be expected. First and foremost, it must remove dirt, but in so doing, it must in no way injure the luster, the color, or the "feel" of any particular material. Rather, by its subtle application, it should enhance the beauty of the material, bringing out the luster and imparting to it a soft feel.

Tracing the application of a cleansing agent from the raw fiber on, we see that when all has been done in the mere cleansing operation, the material should be in excellent condition for dyeing, meaning, of course, that the surface should not in any way be likely to take the dye unevenly, and, therefore, should be free from all adhering substances. Similar conditions hold true throughout all the processing operations.

Starting with the raw fibers, it is not always an easy matter to remove certain kinds of dirt at reasonably low temperatures, and the use of high temperatures is precluded by the tendency of the fibers to become injured by hot soap solutions. Sometimes, too, a degree of alkalinity in excess of what is tolerable by the fiber would be desirable in order best to accomplish thorough cleansing from impurities. Very often, too, reactions occur between the cleanser and the material being cleansed, bringing about difficulties which might easily be overlooked in themselves, but which lead, in all, to no end of trouble. Under any ordinary conditions, every one of the precautions implied by all of these factors must be observed. Besides these, however, troublesome items creep up under different circumstances, and make matters even more complicated.

Most outstanding among these are the difficulties encountered in hard water regions. The chemical nature of soap is such that when the soap comes into contact with the calcium or magnesium salts present in hard water, the insoluble calcium or magnesium soaps thus formed are deposited on the fibers and form a waterproof coating. This prevents the proper penetration of any dye

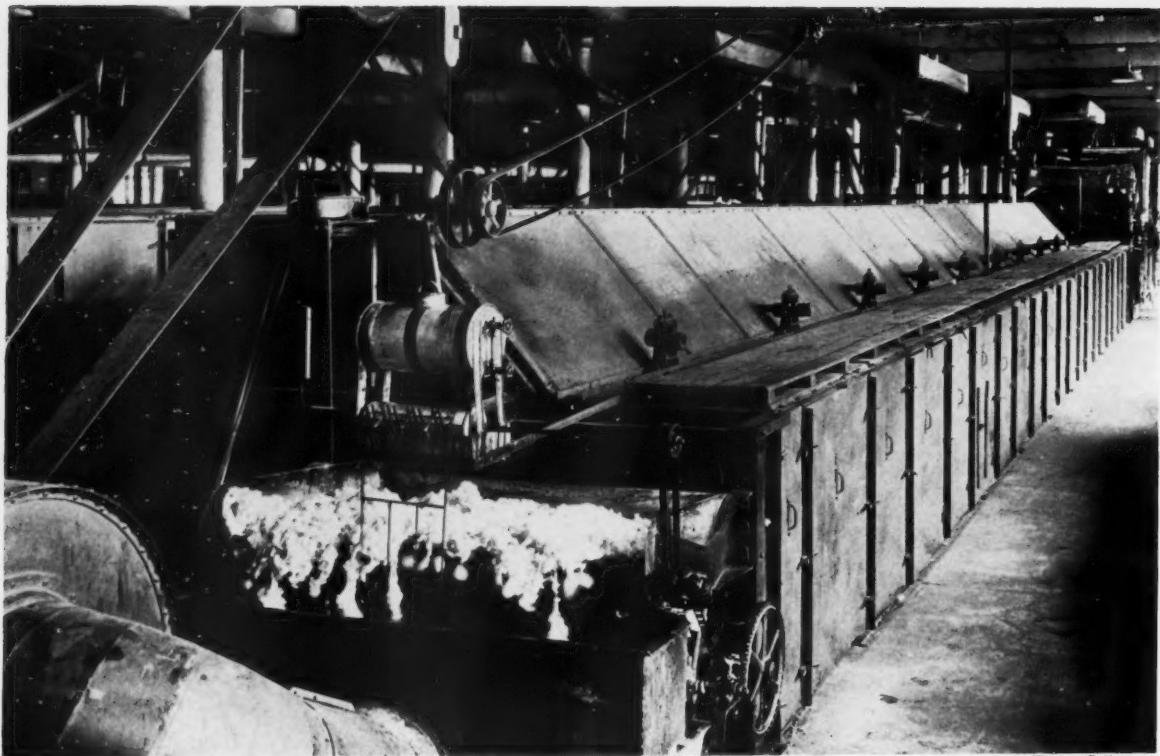
that is later applied, and is altogether detrimental to the material.

Difficulties arising from the formation of insoluble soaps are not restricted to hard water regions, but may take place under any circumstance whereby soap comes into contact with these metals, such as in the cleansing of raw wool, which may contain lime and magnesium salts among its impurities. Another disadvantage of ordinary soap is that in acid solutions, it is broken down, thus losing its lathering and cleansing power. Since acid solutions must be very frequently used in the processing of textiles, and since much dirt is acid in reaction, this obstacle looms large in some processing.

Quite recently, as a result of research conducted along these lines, a solution to the problem is held to be offered in the form of sulfonated oils, sulfated fatty alcohols, and other such compounds. Turkey Red Oil, obtained by sulfonating castor oil, has been used for some time in dyeing and calico printing. It consists chemically of the sodium salt of the sulfuric acid ester of ricinoleic acid, the latter being obtained by treating castor oil, whose chief constituent is ricinoleic acid, with sulfuric acid, and subsequently neutralizing with caustic soda.

Sulfated fatty alcohols are reported gaining favor in the textile industry. Their particular advantages in various divisions in the industry will be discussed below. They are prepared by reducing a high molecular fatty acid, such as lauric acid or oleic acid, with hydrogen, under very high pressure, in the presence of a catalyst, thus getting the corresponding alcohol. This alcohol is then treated with concentrated sulfuric acid, producing the sulfuric acid ester of the alcohol. This salt is subsequently neutralized with sodium hydroxide to give the sodium salt of the sulfonated fatty alcohol. The sodium salt is neutral, whereas the salt from which it is prepared is an acid salt. These compounds are known as sodium alkyl sulfates, the alkyl group name being the name of the fatty acid from which the salt is derived, such as oleyl or lauryl.

For industrial purposes, the fatty acids used are derived from various oils and fats. Notable sources are animal greases of various grades and vegetable oil foots, obtained in the process of refining vegetable oils and fats. The fatty acids are obtained by treating the fat or oil in any one of several ways: by the autoclave or



Ewing Galloway

Raw wool after sorting is scoured in a series of warm soap solutions in this automatic equipment in the world's largest woolen mill.

pressure process, which consists in the application of pressure in the presence of some base, which splits the fat into its free fatty acid and glycerine; by the ferment process, which depends on the action of a lipolytic agent for bringing about hydrolysis of the fat; and by the Twitchell process, which is of wide importance in the soap industry. The Twitchell process depends upon the action of what is known as a saponifier, a fatty aromatic sulfonic acid.

As a class, these sulfated fatty alcohols have good lathering and wetting properties, in water and in acid solutions alike, and dissolve in alkaline solutions, even under pressure. These properties are due to the complete elimination of the so-called carboxyl group, which is the characteristic radical present in fatty acids, and which is responsible for the undesirable reactions of ordinary soap in acid solutions and in hard water. This type of product is represented in the commercial world by *Gardinol* of du Pont, and in the package detergent field by *Dreft* of P. & G.

Another type of sulfonated product widely used in the textile detergent field is prepared by the esterification of the higher fatty acids. This is brought about by treating the fatty acid, such as oleic acid, with hydroethane sulfonic acid, thus getting the fatty acid ester of hydroethane sulfonic acid. When this acid ester is neutralized with caustic soda, the product is the sodium salt of the fatty acid ester of hydroethane sulfonic acid. This type of

product is represented in the commercial world by *Igepon A.* of General Dyestuffs.

Still another type of product is obtained by treating a fatty acid such as oleic acid with aminoethane sulfonic acid to give the acid ester of aminoethane sulfonic acid. This, when neutralized with caustic soda, gives the sodium salt of the acid ester of aminoethane sulfonic acid. This salt, when prepared from oleic acid, is *Igepon T.*

Although many of the same requirements exist for treating different materials at different stages in their manufacture, there is much to be gained from an analysis of the particular requirements for a particular purpose, taking materials and operations one at a time.

BEGIN with the raw wool. Differences inherent in the condition and nature of the raw material are important factors in dictating to the processor what type and what soap to employ. The raw wool fiber is extremely dirty and larger quantities of soap have to be used to get it into condition for dyeing than for any other raw fiber. In the case of wool, the impurities present consist chiefly of wool grease, "suint," or dried-up perspiration, and miscellaneous dirt such as dust, sand, and the like. The method of treatment must be arrived at by a consideration of how each impurity may best be removed, under the circumstances. The wool grease is insoluble in water, and not completely saponifiable by alkalies, but it is easily emulsified and easily soluble in naphtha and other volatile solvents. The suint, on the

other hand, is readily soluble in water; and the miscellaneous dirt can be removed by mechanical means. Therefore, to achieve the most successful results in view of these facts, a warm soap solution at a temperature of not over 125° F. is employed. The temperature is kept low in order to prevent the wool from being injured by the action of hot alkali. The addition of soda ash to this soap solution proves valuable. By the employment of this solution, the grease is completely emulsified, the suint is dissolved, and the other impurities are mechanically removed.

The essential thing now to be considered here is of just what soap the solution is made. Care must be taken to affect the fiber as little as possible, in order to avoid felting, as well as other injury. Therefore, the soap to be chosen should be nearly neutral, containing as little free alkali as possible. Caustic soda, even when present in small quantities, dissolves the wool fiber, or causes it to lose its luster and acquire a harsh feel. It also causes the wool to felt. Sodium carbonate or potassium carbonate, however, may be present in small percentages. It is important, also, for the soap to be free from mineral oil and other unsaponifiable matter, as well as from unsaponified fat. Any such fat present would reduce the emulsifying power of the soap, and, due to the possibility of its being absorbed by the fibers, cause rancidity to set in, resulting in the creation of a disagreeable odor in the finished material and interference with proper dye-

ing, since the fat acts in a protective capacity and does not permit the dye to penetrate evenly.

The presence of rosin is another undesirable characteristic of soaps to be used in this connection, since it is difficult to wash the rosin out from the wool completely and the residue leads to improper dyeing. Mineral filling, such as silicate of soda, should not be present, because it exerts a deleterious action on wool fibers. Easy solubility at a temperature as low as 125° F. is another requirement for soap to be used for wool scouring. A soft soap is preferable to a hard one and olive oil is held to be the most desirable fatty material from which to make the soap. Commercial wool scouring soaps consist of such combinations as a 90 per cent olive oil: 10 per cent coconut oil mixture, or of 100 per cent olive oil foot. For severe cleansing requirements, an all-tallow soap is considered most efficient.

THE sulfated fatty alcohols have assumed a place of tremendous and growing importance in the scouring of raw wool fiber. Gardinol LS, the sodium sulfate of technical oleyl alcohol, is an example of a sulfated fatty alcohol used for this purpose. It leaves the fiber clear, soft, and bright, free from any sticky precipitate. Since it is more soluble than soap and more easily rinsed from the fiber, it removes grease and dirt more easily than does soap, and is effective with all kinds of grease and dirt on any kind of wool. Thus it eliminates some of the



Erwing Galloway

Equipment for scouring rope wool. Rinsing with fine streams of water after scouring to remove detergent in a large worsted mill.

difficulties encountered when ordinary soap is used, due to the formation of lime soaps on the fiber. Any alcohol sulfate that is left in the wool aids in the dyeing operation, whereas soap left in the fiber interferes. The oleyl alcohol sulfate has been found a more effective agent for scouring wool than the sulfate of lauryl alcohol.

In addition to its importance in the scouring of the raw wool fiber, soap is used in considerable quantities for scouring woolen yarns and cloths and also in the milling or fulling of woolen cloths. Unless wool is oiled after scouring, satisfactory yarn cannot be spun. This spinning oil must, however, be removed from the finished fabric after spinning and weaving. From these given facts, it is not difficult to define the specifications both of the spinning oil and of the soap to be used for removing it.

It is not good policy to use mineral oils for lubricating the wool fiber since they are unsaponifiable, and therefore only difficultly and unsatisfactorily removed. It is desirable to use an animal or vegetable oil which is capable of forming a soap which is readily soluble in water at a temperature of about 125° F. since this is the highest temperature to which the scouring bath may be raised. Olive oil is considered especially suitable for this purpose, but its price is generally prohibitive. At the present time, red oil is most commonly used, since it is both cheap and effective and, in addition, forms a very readily soluble soap. The choice of a soap for removing the spinning oil rests on a number of factors, important among which are the nature of the oil which is to be removed and the quality of the goods which are to be treated.

The soap most commonly employed is made from red oil and sodium carbonate or caustic soda. This is a pure soap as near neutral as possible. For cheaper goods a second curd soap can be used, and for goods of very poor quality soap containing a small amount of rosin, which is added for the sake of economy, may be employed. The quantity of soap to be used in this operation is determined by the nature of the oil used on the yarn and cloth.

Thirdly, soap is of great importance in the milling or fulling operation, since the whole beauty and finish of the woolen cloth is dependent upon the efficiency of the cleansing process. The cloth is milled in order for it to shrink and become more compact in texture, and after milling, all traces of soap must be thoroughly removed in order that the cloth may be dyed satisfactorily. It is essential, then, for milling soaps to be chosen with the utmost care.

First of all, it is evident that such soaps must be easily soluble, in order that they will penetrate the fibers and subsequently be easily and completely removed by washing. It is important, too, that no free alkali be present, since it would not only injure the feel of the wool, but any alkali taken up by the wool is liable to interfere with proper dyeing, causing the dyes to run or change color. No free fat or rosin is permissible since they

would get into the fibers, causing them to become sticky and lead to uneven dyeing. In addition, the presence of free fat leads to the danger of later rancidity and unpleasant odors. No free mineral filler should be present, since such impurities impart a harsh feel to the cloth. In general, the essential properties of a soap to be used for fulling purposes will be fulfilled by a pure, neutral, well-made soap, containing neither foreign organic matter nor mineral impurities, certainly no mineral impurities in excess of one-quarter of one percent.

Soft potash soaps are preferable to hard soaps for general milling use, and while olive oil is the most satisfactory base for such soaps, tallow and palm oil soaps, used together with soap made from coconut or palm kernel oil to effect greater solubility are satisfactory, inasmuch as they give heavy-bodied soap which possesses good fulling power. Coconut and palm kernel oil soaps, however, are not favorably regarded inasmuch as they have a ready tendency towards rancidity. Since cotton-seed and corn oils frequently contain resinous substances and coloring matter and, in addition, are semi-drying oils, they are not aids to milling.

Sulfonated oils have not found much favor as agents for cleansing woven materials, chiefly because they do not possess sufficient body to exert any considerable mechanical action on such goods. They are valuable here, however, as elsewhere, when used in conjunction with soap, for the beneficial action they exert in preventing the precipitation of insoluble metallic soaps which would cause difficulty in subsequent treatment of the fabric.

A great deal of work holding considerable interest has been carried on and is still being carried on in connection with finding new methods for treating woolen fiber and cloth with materials other than soap and sulfonated oils to effect cleansing. Among these are methods for scouring raw wool by freezing, in which process the wool grease becomes solid and is agitated to form a dust. Pitch can also be removed from wool in the same manner.

The processes of cleansing by means of solvents appear encouraging. Pitch and like coloring materials can be removed from wool by treating it with the vapor of some volatile solvent such as trichlorethylene, hexalin, and so forth, and degreasing may be effected by treatment with various organic solvents below 0° C. Another interesting development in this field consists in cleaning raw or processed wool with finely divided dry gypsum by means of a continuous apparatus.

IN the silk industry, soap plays an important part in two ways, namely, for degumming the raw silk fiber, and for after-treatment of the goods for dyeing, and so on. The raw silk fiber consists actually of two portions, an outer coating of a glue-like nature called sericin, which constitutes about 25 percent of the total, and an inner portion which forms long lustrous fibers and actually constitutes the true silk fiber, known as fibroin. The coating of sericin lessens the luster of the silk, and

gives it a harsh feel. Therefore, in order to obtain a product having the full luster and smoothness of silk, it is necessary to remove this coating of sericin. The process is known as degumming. It has been found that the presence of alkali is absolutely essential to obtaining satisfactory degumming, and that soap is the most satisfactory means at our disposal for supplying the requisite alkali.

Ordinarily, the degumming process is carried out at a high temperature, but efforts have been made to lower the temperature in order to obtain more satisfactory results. Something has been accomplished in this direction by the use of enzymes which are mixed with the soap. These enzymes are members of protease groups and exert an action on proteins, by means of which they decompose the sericin of silk at a moderate temperature. It is possible, though not very economical, to degum silk completely by means of these enzymes, provided their concentration is great enough and their action sufficiently prolonged.

The soaps used for degumming silk must rapidly penetrate the silk fiber and wash out rapidly afterwards, and so they must be easily soluble in water. In order to avoid staining the silk, they should not possess added colors, and, in order to prevent the development of unpleasant odors in the silk, degumming soaps should not in any way have a tendency to go rancid. Inasmuch as caustic soda attacks the fibroin of the silk, making it dull and hard, excess of free alkali must not be present. Soaps derived from unsaturated fatty acids and oils such as oleic acid and olive oil, produce a more lustrous silk than those from saturated oils, such as corn or cottonseed oil.

Olive oil and olive foots are the best oils for use in soaps for degumming silk, since they are easily soluble and leave a pleasant odor in the material. Bleached palm oil soap and lard oil soaps are also used, since they, too, are readily soluble and odorless, but they are not as desirable as olive oil soaps. Coconut oil and palm kernel oil soaps, although they are colorless and readily soluble, are not satisfactory. Cottonseed oil has a tendency to develop rancidity, and, in addition, often contains staining matter and so should not be used. Since tallow soaps dissolve too slowly, they are never used. The addition of borax to silk soaps is considered advisable by some silk manufacturers.

In the field of sulfonated derivatives, sodium lauryl and sodium oleyl sulfates are particularly effective in this process, yielding a soft silk in excellent condition for throwing. The usual degumming agents cannot be replaced by the alcohol sulfates, but the use of small quantities of these exerts a beneficial action on the fiber, especially when hard water has to be used.

Soaps used for dyeing and after-treatment of the silk are sometimes used alone, and sometimes together with an acid, such as acetic acid. In any case, these soaps must be made from fats which do not develop rancidity on standing, and which are, themselves, of good quality.

The importance of this is brought out in the condition which results when low grade fats or poorly made soaps are used. Deposits of free acids or difficulty soluble esters will adhere to the material being washed and lead to a great deal of trouble in rinsing and later in dyeing. Furthermore, their presence leads to the development of unpleasant odors in the silk. Rosin, too, should be absent from these soaps.

IN the cotton and linen industry, not so much soap is used. As a matter of fact, soap is used only for the woven fabrics, since the fibers, being practically pure cellulose, do not contain any considerable quantity of impurities. Soap, however, is used in some preparatory treatment previous to the dyeing of the fabric, during and after dyeing, and in calico printing. The cotton fiber has a natural wax coating, which greatly facilitates spinning, and this coating is removed by soap. The soap used for treatment previous to dyeing should be slightly alkaline in order to aid the cleansing operation. This alkalinity does not have a destructive effect on the cotton or linen fiber. For this purpose, a tallow curd soap or a soap made from tallow mixed with a small amount of coconut oil is generally used.

Practically any good soap may be used for treating the material during and after dyeing, provided it has a desirable odor and is neutral, in order to insure prevention of the colors being acted upon and the shades being changed. Olive oil foots is the best material to use for mordanted cotton dyes, but both olive oil and palm oil soaps are used. Palm oil soaps are not so soluble as olive oil soaps, but they work quite well, possess a pleasant odor, and do not develop rancidity. Tallow soaps, although occasionally used, are not very desirable, since they are not very soluble and have been known to go rancid.

A considerable amount of soap solution is required for the calico printing operation, the concentration of soap solution being varied to suit the different classes of dyestuffs. The soap is employed for cleansing the fabric from the gum and starch used in the printing pastes, as well as for its effect on the dyes, this effect being based on the nature of the dye. In accordance with the requirements that they must meet in employment, soaps used in calico printing should be readily soluble in order to penetrate the fabric readily and easily and to allow of the temperature of the bath being kept low. They must be perfectly neutral, since the presence of free caustic sometimes affects the dye. Inasmuch as there must be no residual objectionable odor on the goods, rosin may not be used in the soap, and neither may cottonseed, corn oil, or tallow, lard, and nut oils be employed in the manufacture of the soap. Fillers, such as talc, and sodium silicate should likewise be absent. Olive oil potash soap is about the best soap to use for this purpose. Palm oil may also be used for the soap.

(Turn to Page 61)



—Heetfield-Tillou

METAL POLISHES

By Ralph H. Auch

Chief Chemist, American Products Co.

THE outlook for metal polishes, other than "silver" polish for use on precious metals, is none too bright. One needs only to inquire in his usual retail outlet for his favorite brand, or for any of the better-known brands of metal polish for that matter. He will find he is presented usually with a shop-worn package that has warmed the shelf for a long time, or else be offered the apology "we are out of it," or "the demand doesn't justify carrying it." With the increasing popularity of chromium plate, in the home as well as for automobile hardware and accessories, the situation is not likely to improve.

As for "brass" or "metal" polish for office and bank buildings and institutional work, it is also rather hard to enthuse about the outlook. All the larger cities have service companies that take care of brass and bronze at a rate cheaper than one's own porter or janitor service can care for it. And they use relatively little polish in their work. They polish once, then resort to lacquering by means of portable sprayers. The lacquer will stand the wear and tear and abuse from three to six and even eight months.

If metal polishes are to hold their own, or improve their position, many must be improved in formulation. This discussion will not be so much along the lines of formulae to be lifted directly, since the formulary books and patent literature are full of them. Type formulae will be offered, more in the nature of suggestions for improving present more or less (and mostly less) satisfactory products. Silver polish will be discussed at the close.

The abrasives that have been used include tripoli, silica dust, precipitated calcite, diatomaceous earth, colloidal clay, rottenstone, emery flour, pumice, putty powder, precipitated chalk, prepared chalk (whiting), tin oxide, salt, aluminum oxide, fuller's earth and rouge. Except for certain applications, the choice may well be confined to tripoli, silica, diatomaceous earth, precipitated calcite, and colloidal clay. The tripoli available varies between wide limits. For high grade polish, pure silica, water floated so that 95 per cent or better passes 325 mesh, is satisfactory.

Precipitated calcite is seemingly quite granular but breaks down to do an excellent polishing job in certain

formulations which incidentally should never be of water base. Colloidal clay, even though of the finest grind, is often contaminated with very hard quartz or silica. The only safe way to use bentonite or colloidal clay is to swell it, then suspend it in the water used in the formula and decant it off of the sandy gritty sediment.

The soap, in those formulations where employed, is made often of oleic acid and ammonia, or triethanolamine, right in the batch, and sometimes without the aid of heat. Color is occasionally added but more frequently the rose or yellow color is imparted by tripoli. If tripoli is not included among the ingredients, the addition of ochre or synthetic ochre, which has a color value of 15 to 20 times that of the natural, provides a convenient means of tinting the polish. An odor is rarely added, but there is no law against its use if desired. Any of the usual inexpensive oils or a mixture of same may be added to cover the characteristic ammoniacal odor of many polishes.

Typical of the paste polishes offered for automobile and household use is the following: The first suggested formula duplicates one of the widely sold solid polishes offered in a slip-cover can especially for auto use.

Stearic Acid, double pressed	6
Straw Paraffin Oil	10
Sodium Hydroxide 50%	1
Deodorized Kerosene	18
Precipitated Calcite	62
Ochre	3
to make	
	100

This is a tricky one to make. It should be made in a jacketed kettle with the aid of heat and filled off into



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tins directly and immediately. No water should come in contact with it at any stage as it will ruin it. If the can is not tight, the kerosene may volatilize in the interval between manufacture and consumption. In that case the calcite will slowly absorb moisture, swell and possibly force the cover off.

Another that makes a paste of good body for packing in flat cans fitted with wide tight covers and requiring less skill and care in manufacture is as follows:

Unfilled Soap Chips	10
Silica Dust	20
Air-floated Tripoli	20
Pine Oil	2
Water	48
to make	
	100

The soap is completely dissolved in the hot water and the previously mixed silica and tripoli is incorporated with agitation. The pine oil is added and intimately mixed in just before filling. Filling is, of course, done hot as the mass sets stiff on cooling. To impart a good finish to the top the covers may be forced home while the mass is still warm and the tin inverted.

Two formulae are offered that are typical of liquid metal polishes, offered in cone top and other screw cap cans. The following formulation was submitted in a blind test with one of the best selling commercial polishes which had been transferred to plain containers. It came back a 2 to 1 choice over the commercial product, having



SOAP

been used on brass, nickel, copper, chromium, pewter and even silver and mirrors.

Oleic Acid	5
Air-floated Tripoli	12
Silica Dust	12
Ammonia 26°	3
Pine Oil	5
Water	63
 to make	 100

This is a rather heavy bodied liquid in which the abrasives settle only very slowly and slightly and never to a hard sediment. A lighter bodied polish of any desired consistency may be prepared by cutting all five ingredients ten to twenty per cent. This increases the tendency for the abrasive to settle out. If it stands for a period of a week undisturbed, the sediment is rather difficult to shake back in.

This shortcoming may be completely overcome by the incorporation of one per cent or less of colloidal clay mixed in the dry with the other abrasives. The quantity required will, of course, vary with the water absorbing capacity of the clay at hand.

Comparative tests of various abrasive materials indicate that colloidal clay is practically valueless so must be looked upon as a desirable addition only because of ability to hold the active abrasives in suspension. On the other hand, for the present day automobile metal trim, colloidal clay is satisfactory. This is due to the fact that the metal is largely chromium plate which requires more cleansing than polishing.

A typical formula for use on chromium plate follows:

P.V.M. Naphtha	30.
Oleic Acid	1.
Triethanolamine	0.5
Ammonia 26°	1.
Colloidal Clay	3.5
Water	64.
 to make	 100

The oleic acid is mixed with the naphtha. The triethanolamine is dissolved in the water separately and the clay is stirred in. The first is then added to the second with violent agitation until a creamy emulsion forms, then the ammonia is added. This is a thin, stable, inviting-looking white emulsion. The directions should urge application and then allowing it to dry before rubbing off with a dry second cloth.

For a general metal polish, more of more active abrasives should be incorporated. Silica dust and/or tripoli serve the purpose and sufficient colloidal clay should be retained to keep them suspended. Such abrasives should be mixed into the oil portion instead of the water phase before emulsifying. The oleic acid and triethanolamine figures should be doubled and may need to be even higher in the desired variations of formula to insure stability of the emulsion.

If it is desired to make a non-inflammable polish, yet have the advantage of volatile solvents incorporated for

their cleansing action, the following is satisfactory and suggestive of modification possibilities:

P.V.M. Naphtha	15.
Carbon Tetrachloride	10.
Oleic Acid	4.
Tripoli	12.
Water	57.5
Ammonia 26°	0.5
Triethanolamine	1.

 to make	 100
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The first three ingredients are intimately mixed, then run into the mixture of the remaining four materials with violent agitation.

An ammoniacal polish, which is certainly better than the average polish of this type and incorporates a highly rated ortho-dichlorbenzene follows. It also contains diatomaceous earth, which is an excellent safe abrasive for finer finishes. This abrasive must be carefully chosen, as indicated later under silver polish.

Oleic Acid	2.5
Orthodichlorbenzene	50.
Pine Oil	2.5
Diatomaceous Earth	10.
Silica Dust	10.
Ammonia 26°	2.5
Water	22.5

 to make	 100
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An intimate mixture of the first five ingredients is made and the ammonia dissolved in the water is run in with agitation. This makes a fluid stable emulsion.

Typical of the greasy base polishes is the following, a liquid polish:

Unfilled Soap Chip	1.
Alcohol (either Ethyl or Methyl)	7.
Straw Paraffin Oil	60.
Tripoli	30.
Colloidal Clay	2.
Odor (if desired)	q.s.

 to make	 100
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The soap is dissolved in the alcohol before mixing with the other ingredients. The colloidal clay does not keep the abrasives suspended due to the absence of water. It does, however, help to bring the abrasives back in suspension on shaking.

For a paste polish the tripoli is replaced with diatomaceous earth. It forms a firmer or softer paste dependent upon the absorption and adsorption properties of the earth at hand. For obtaining the desired consistency, the earth may be adjusted up or down with a corresponding decrease or increase in the oil content. Trial and error is the only way to get any desired consistency due to the wide variation in various earths. For a smooth inviting appearance the mass is best passed through an ointment or paint mill.

Many more formula suggestions could be made, but those above should provide ample opportunity for development. They are so dissimilar they may convey the
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Dry Cleaning Soaps

By DR. C. A. TYLER

THE combinations and permutations possible in formulating dry cleaning soaps are practically without limit. Basically, these products consist of a soap mixture in which the fatty acid has been only partially saponified, dispersed in a volatile organic solvent or solvents. In order to understand why the manufacturer has a yen to throw in a little of this and a little of that to see what it will do, it is necessary to know how these soaps are used. As the picture is developed, it becomes evident that the matter is much too complex to be explained by any single theory of detergency.

The dry-cleaner handles silk and wool garments where it is important that the garments keep their original shape, finish and appearance. These would be adversely affected by soap and water washing, particularly as to shape and size. The usual dry-cleaner's liquid, petroleum naphtha, is sold under many trade names, but all brands meet the same general specifications. Naphtha cannot be called a detergent. It really is solely a solvent, meaning a solvent for grease and related compounds. The more tenacious dirt on a garment is held there by grease, which sticks both to the fabric and to the otherwise loose dirt. Naphtha dissolves out the grease and frees the dirt not too deeply imbedded in the fibers. This cleaning may be sufficient to remove superficial soil but it is not sufficient to clean 99.9 per cent of the garments sent to a cleaner.

While naphtha is only a solvent, soap is a detergent. We can talk about soap, its surface-activity, emulsifying ability, suspending power, pH, and what not,—still we do not know exactly why it cleans, but the fact remains that it does. So when the dry-cleaner comes to the real cleaning process, he adds a small amount of soap to his solvent. Of course, soap is not soluble in petroleum naphtha, so it has to be made in a form such that it will disperse readily in the naphtha. The soap itself is made up in an organic solvent, which may be naphtha alone, or naphtha mixed with carbon tetrachloride, benzene, ethylene dichloride, alcohol, ethyl acetate, isopropyl alcohol, etc. The excess free fatty acid which is nearly always present, aids in dispersing the soap in the organic solvent. Strictly speaking, not all soaps are insoluble,—sodium, potassium and ammonium soaps are insoluble, but triethanolamine soap is soluble in naphtha. However, as made and used, the former are easily dispersed and probably the cleaner calls them soluble.

Since the amount of solvent is so great in comparison with the amount of soap used, it is absolutely necessary

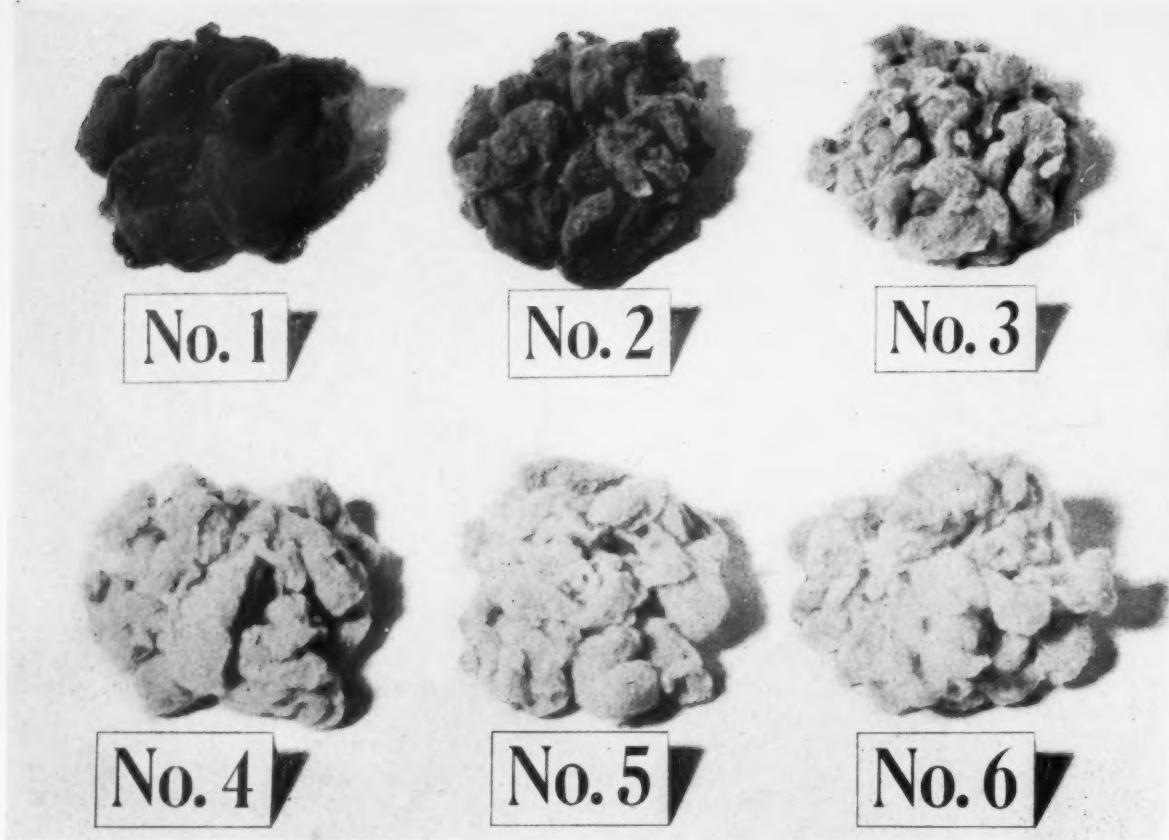
for economic operation, to recover the solvent to which the soap was added. The part the soap plays in cleaning and solvent recovery is best understood by following the work through the various stages.

The dry-cleaning process somewhat parallels laundry procedure, no doubt differing from plant to plant as much as in the latter case. The clothes are sorted, placed in bags, and given a "break" in the wheel with clear solvent. This removes a certain amount of soil. The solvent is drawn off and fresh solvent and soap added. The amount of solvent used is just sufficient to cover the garments. Some wheels take 300 to 400 garments at a time. For a wheel six feet long and four feet in diameter, the usual amount of soap added is one to two quarts per charge. Another practice is to add a pound of soap for each 50 garments. The usual relation of soap to solvent is probably in the neighborhood of a pound of soap to 50 gallons of solvent, which means less than a one per cent solution, or rather dispersion.

After the cleaning in soap and solvent, the garments are whirled, dried and sorted. Garments have to be gone over thoroughly at this stage and all sorts of stains "spotted" that were not removed by the general cleaning. After the spotters are through with the garments, they go back for a rinse in clear solvent to remove rings which may have developed during the spotting. The garments are then dried and pressed. Some procedures may be more involved than this, others simpler, depending on the grade of work turned out, but this gives a general outline of the process.

NATURALLY the solvent cannot be run off as waste, as are the wash waters in the laundry. A few plants recover the solvent by distillation, but the equipment for this is very expensive and has not been generally adopted. Another method is the caustic treatment of solvent, in which the naphtha as it comes from the wheel is made to bubble up through a layer of strong caustic soda solution, which takes out the dirt and impurities. This method is used more or less, but is not too satisfactory because of the danger of caustic being carried over with the solvent. This has happened in some cases where the system was in use, with consequent damage to garments, machinery, and the whole works.

The cheapest, simplest and most-used method of sol-



Is dry cleaning soap necessary? Here is the answer given by R. A. Winser, research chemist for Armour & Company, showing that a volatile solvent alone cannot do the work. No. 1 is a sample of uniformly stained wool used to test the detergent value of dry cleaning soap. No. 2 shows the wool after washing with Stoddard solvent alone. No. 3 after having been cleaned with a 0.1 per cent solution of soap, No. 4 with a 0.5 per cent solution of soap, and No. 5 with a 2.5 per cent solution of soap. No. 6 shows the results with a 7 per cent solution of soap,—all of which proves that the stronger the soap solution up to a certain point, the better the cleaning action.

vent recovery is by filtration. In this system, as well as in the others, the process is a continuous one. The solvent is piped from the wheel to the filter where all insoluble material is removed and collects as so much muck, allowing the clean solvent to run through and back to the wheel. For efficient filtering it is always necessary to use a filter aid, which is some form of diatomaceous earth or carbon. In practice, the wheel is charged with solvent before any load is added, the filter aid is thrown into the clear solvent and the mixture is pumped through the filter. The adsorbent powder forms a light cake completely covering the filter, the clear solvent passes through and is returned to the wheel ready for the break. After the break the solvent passes through the coated filter which takes out the dirt. A glass tube is present at some point in the circulating system so that the observer can tell when the solvent is clean.

After the break, when soap is added to clean solvent

in the wheel and the garments tumbled for a definite period, both soil and soap have to be removed by the filter. At this stage the liquid may have to circulate through the filter and back for fifteen minutes or more, which means many passages through the filter before the solvent is again clear and colorless. The chief difficulty in the whole process is filtering with the soap present. If too much water is present, the soap will form a gummy mass on the filter and foul the filter. The aim of the manufacturer is therefore to produce a soap which will not give rise to filtering troubles. The dry-cleaner usually blames the soap anyway for anything that goes wrong, particularly difficulties in filtering. Because of this psychology, the manufacturer sometimes gives his product a trade name suggestive of easy filtering. It is doubtful whether this is a wise practice, since it emphasizes soap as the probable offender when in fact the difficulties may be due to any of nineteen other causes.

IT CAN readily be seen from the above that the manufacture of dry-cleaners' soap presents quite different problems from that of ordinary soap to be used in water. The products are either pastes or liquids, and may contain almost anything. The actual soap content may range anywhere from 10 to 50 per cent, with 10 to 20 per cent of excess free fatty acid present as a rule, the balance being water and a mixture of organic solvents. Some dry-cleaning soaps contain no excess free fatty acid. The fatty acids commonly used are a mixture of stearic and oleic acids. A recent tendency is toward the use of vegetable fatty acids, as it is believed that they will give less odor in the dry-cleaning system, especially during the summer months, than do the animal fatty acids.

The saponifying agents may be caustic soda, caustic potash, ammonia, lime, triethanolamine, or a mixture of these. The alkali is always added in concentrated form in order to keep the water content low, for example, a 30° Be. caustic potash solution or 26° Be. aqua ammonia. The solvent base is usually petroleum naphtha, but to this may be added one or more of such liquids as the following: alcohol, benzene, ethylene dichloride, monochlorbenzene, isopropyl alcohol, ethyl acetate, butyl acetate, ether, chloroform, carbon tetrachloride, amyl acetate, trichlorethylene, tetrachlorethane, benzaldehyde, cyclohexanol, etc.

The method of manufacture is to put into the soap kettle the organic solvents, the free fatty acids, including any stearic acid to be used, in the amount to be saponified, and an equivalent amount of alkali for complete saponification. The mixture is brought nearly to the boiling point. It should not be allowed to boil or much of the volatile solvents will be lost. After saponification is complete, excess oleic acid is added. The product varies from a light or dark yellow color according to raw materials. The insoluble soap crystals produce a sheen in paste products characteristic of hand lotions and some shaving creams.

Potash and ammonia soaps are those used most. The object is to get a soap which will disperse very readily when added to the naphtha in the wheel. Calcium soap is sometimes present, as it is believed to aid dispersion under these conditions. Soaps which would clump together on the goods would naturally be out of the question. The cleaner would express this by saying that the soap must be soluble. While not literally true, to all practical purposes, the soap appears to dissolve in the naphtha. Excess fatty acid aids this dispersion and this is the reason for its presence.

When it comes to the question of the volatile solvents used, it is anybody's guess as to what may be present. Most of the solvents mentioned are used as spotting fluids. It may be that the manufacturer considers their presence a talking point. As far as removing stains is concerned, it cannot be anything more. For example, ethyl and butyl acetates are lacquer solvents. Supposing they are present in dry-cleaners' soap to the extent of

10 per cent. In the wheel one might have a 0.5 per cent solution of soap, which would mean a 0.05 per cent solution of the acetates. As far as a lacquer stain is concerned, that amount of acetate solvent is not enough to know it is there,—certainly it is not enough to have any effect on the stain.

The real argument, if there is one, for using a mixture of solvents in the soap, is to aid dispersion. A small amount of water has to be added in making the soap, and this, as well as the soap, has to be dispersed. Supposing the liquid phases consist of ethylene dichloride, naphtha, alcohol and water. Soap is insoluble in the first two, but soluble in the last two. Ethylene dichloride and naphtha are insoluble or immiscible with water. Ethylene dichloride is miscible with alcohol but naphtha is not. Alcohol and water are miscible in all proportions. You can put all of these together and get a homogeneous mixture. However, this is not predictable. The system is much too complicated to be able to tell what is going to happen.

A good procedure in using paste soaps is to disperse them by heating in naphtha, then adding the more dilute dispersion to the naphtha in the wheel. In other words, keep a stock dispersion of soap in naphtha on hand, the same as many laundries and a stock solution of soap to the wheel rather than the soap in its original form.

The usual amount of water present in these soaps is under 15 per cent, and in most cases under 10 per cent. Too much water in the naphtha as it goes to the filter interferes with easy filtration. The soap takes up water and so does the filter powder, with the result that the filter cake loses its porosity. The bulk of the water in the naphtha at this stage, however, comes from the garments being cleaned rather than from the soap. The natural moisture content of wool is about 18 per cent, but it will absorb as much as 30 per cent of its weight of water without feeling damp. Silk has a natural moisture content of about 10 per cent, but it will absorb from 20 to 30 per cent of its weight of moisture without feeling damp. The naphtha removes a large part of the moisture present.

At one time it was the practice to dry the garments before putting them in the wheel. Later it was discovered that a certain amount of moisture has to be present to maintain efficient cleaning, in particular to give the soap a chance to act on the water-soluble soil. A good part of the soil may be water-soluble in nature,—some of the ingredients in perspiration, sugar stains, fruit stains, etc. The problem is to get a nice balance, representing the minimum amount of water necessary to remove water-soluble soil, and the maximum amount of water that can be used and still not interfere in the filtering process. Too much water may also make the colors run. Alcohol assists in removing water-soluble stains as well as some others. It also is a dispersing agent for the soap. Some cleaners add a quart of alcohol at the same time that they add the soap to the wheel.

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New Products



Bobrick's new dog shampoo which is making a hit on the Coast. Label designed by Mrs. Aletha Hendricks of Los Angeles. Bottle by Hazel-Atlas. Label applied by Ceramic Decorating. Closure by Phoenix of Chicago. Prize winner at Pacific Coast Packaging Competition.



Five pounds of perfumed and tinted soap flakes in wide-mouth glass jar for bath or fine laundering purposes. By John Wanamaker, New York and Philadelphia. Sold in pink, blue, and white, perfumed in rose, lavender, and unscented.

James Huggins & Son of Malden, Mass., put a new stock spray on the market in a striking red and black can. Container designed and manufactured by Sefton Can Company of Malden. Equipped with Amerseal nozzle and closure.

and
Packages



In Hollywood, this new wooden shaving soap bowl has just been put on the market by the Castilian Products Corp. Box in gold. Maple bowl decorated in gold and black.



A new patented toilet and household soap appeared at the recent British Industries Fair, "12 Petrol Soap." Stated to contain petroleum distillate. Manufactured by Davis Petrol Soap Company, Ltd., of Manchester, England.



Sentinels,—a new style of packaging for paradi-chlorbenzene blocks,—in printed cellophane in varying colors,—by Clifton Chemical Company of New York.

Cedar oil polish in a non-skid bottle. New product from Visco Chemical Products Company of Cleveland. Bottle by Salem. Closure by Anchor Cap.



A Soap Market Surveyed

A SWITCH from package soap flakes and chips to granulated soap and soap beads is one of the most important changes in soap buying habits disclosed by a recent survey of the Milwaukee market conducted by the *Milwaukee Journal*. The survey is based on a series of personal interviews with a selected list of consumers and is made annually by this well-known newspaper. The findings of the latest survey have just been published by the *Milwaukee Journal* under the title "Consumer Analysis of the Greater Milwaukee Market for 1936". The increase in use of soap beads and granulated soaps, besides replacing the soap flake and chip to a certain extent, also seems to be pushing the white laundry bar farther into the background to judge from the most recent report. Sale of the brown laundry bar seems not to have been so much affected. Soap crystals and water softeners have also declined in use over the past year, having been replaced in many families by the growth in popularity of granules and beads.

No noteworthy changes in the toilet soap field are revealed by the latest report. Of the total Milwaukee population, almost 99 per cent continue to be regular users of toilet soap, with an average consumption of 5.6 cakes per family each month. This is a drop from the 6 cake average monthly consumption reported in the previous year, but is about on a par with reported consumption in 1930, 1931 and 1934. This seems to indicate that the figure for 1935 was abnormally high, induced no doubt by the low prices prevailing on soap through the early part of the year. Housewives reported the use of six less brands in 1936 than in the previous year, bringing the total down from 86 to 80. "Lux" toilet soap continues to lead the sales parade with a duplicate of its 1935

record of use by 29 per cent of the Milwaukee families. "Palmolive" holds second position with 25.5 per cent and "Lifebuoy" remains a close third with a mark of 24.3 per cent. The following table shows the percentage of families using each brand as of January, 1936, 1935 and 1934. (Where the figure was less than 1 per cent a blank appears.)

Brand	1936	1935	1934
	%	%	%
Lux	29.0	29.0	21.6
Palmolive	25.5	26.2	22.5
Lifebuoy	24.9	24.3	29.5
Camay	13.0	12.4	9.2
Ivory	12.1	11.8	12.7
Woodbury	2.0	2.4	1.3
Colgate's Cash. Bou.	1.8		
Gimbel's Hardwater.	1.8	3.4	5.3
Miscellaneous	8.0	8.9	9.1

A drop was noted in use of package soap flakes and chips this year. Where a year ago 82.3 per cent of all families in the district used products of this type, the percentage fell to 75.8 per cent this year. The average consumption per month by families using this type soap remained the same — 2½ packages. Although the demand for package soap flakes or chips is apparently less than a year ago, due to the growing popularity of beads and granules, there are more brands being offered in the Milwaukee market — 75 as against 72 a year ago. The leading seller is still a local product, "John Hanser", which is used by 36.4 per cent of all families. "Lux" holds second position with 25.7 per cent and "Chipo" is again third with 14.7 per cent. The following table shows percentage of families according to soap chip consumption. (Figures of less than 1 per cent omitted.)

Brand	1936	1935	1934
	%	%	%
Hanser	36.4	38.0	36.5
Lux	25.7	25.6	19.5
Chipo	14.7	14.9	20.0
Clean Quick	10.9	10.4	11.8
Ivory	10.8	8.7	7.0
Crystal White	4.1	3.2	2.6
Schuster's			
White World	1.9	1.9	1.5
Fom	1.6	3.1	
American Family	1.4	1.3	1.1
Miscellaneous	7.7	10.5	10.9

The percentage and number of Milwaukee families using white laundry soap continues to drop. Only 57.3 per cent report use of white bars this year as against 57.9 per cent a year ago. Average consumption per family has also dropped — from 6 bars per month last year to 5.8 bars this year. The number of brands in common use, on the other hand, has increased to 31 from the 28 figure of a year ago. "P. & G." continues to be the leading seller, with a percentage of 51.6, "Crystal White" holds second place again with 28.7 per cent, and "Ivory" is again in third place with 17.1 per cent.

Consumption of brown laundry soap showed a percentage gain, with 65.7 per cent of all families using the brown bars as against 64.7 per cent a year ago. Monthly consumption per family remained the same at 5.7 bars. The number of brands offered in the Milwaukee market is lower this year, the total being 30 as against 36 a year ago. "Fels-Naptha" continues to head the list with a high figure of 70.6 per cent. "O. K." is again second with 19.2 per cent and "American Family" third with 5.5 per cent. The following tables show the percentages for both groups of bar soaps.

White Laundry Bar Soap	1936	1935	1929
Brand	%	%	%
P. & G.	51.6	52.9	56.9
Crystal White	28.7	27.5	18.8
Ivory	17.1	13.9	7.2
Hanser's	1.4	2.1	
Kirk's	1.4	2.8	15.2
Miscellaneous	2.6	3.4	3.5

Yellow Laundry Bar Soap	1936	1935	1929
Brand	%	%	%
Fels-Naptha	70.6	65.0	67.4
O. K.	19.2	18.5	
American Family	5.5	6.3	8.7
Star	2.6	4.7	23.7
Hanser's	2.0	4.8	
Miscellaneous	2.4	3.1	1.4

The number of families using granulated soap or soap beads has shown a significant increase this year. Over the past twelve months

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Soapers Used Less Fats in 1935

Soap Makers Bought 6.4% Less Oils and Fats Last Year—Coconut Oil Use Drops 33%—Tallow at Peak—Country's Total Fat Use Up 11%*

CONSUMPTION of fats and oils by the soap industry fell 6.4 per cent in 1935 from the 1,634,271,000 lb. total of the previous year, the total for the 1935 twelve-month period being 1,529,106,000 lbs. This drop in consumption stood out more prominently in view of the fact that in every other important oil and fat consuming field, there was an increase in fat consumption in 1935 ranging all the way from 20 to 50 per cent. There seem to be two possible explanations for the drop in fat consumption by the soap industry. Soap sales may have suffered a decline due to the higher prices made necessary by the sharp advance in raw material costs. Another factor to be considered is the unusually large purchases of fats by the soap industry over the fourth quarter of 1934. At the close of

1934, stocks of fatty raw materials, and of finished soaps too, were reported to be exceptionally high. Perhaps the reduction in fat consumption over 1935 resulted from a move on the part of the soap trade to reduce its inventories, rather than any real falling off in soap sales.

An analysis of the quantities of the various oils and fats used by the soap industry last year gives a good picture of the effect which the excise tax has had on the soap maker's choice of his raw materials. Consumption of coconut oil during 1935 was curtailed drastically. Total consumption for 1935 was only 229,711,000,000 lbs., as compared with a 1934 figure of 341,124,000,000 lbs., a drop of 33 per cent. Palm oil, the other outstanding imported soap oil affected by the tax, shows a drop in consumption from the 1934 total of

154,704,000,000 lbs., to a 1935 figure of 87,311,000,000 lbs. Consumption of grease dropped from 142,732,000,000 lbs. in 1934 to 98,086,000,000 lbs. in 1935. Tallow, which registered a 30 per cent increase in consumption during 1934, held this same place during 1935 as the most important soap raw material. Consumption was 664,433,000,000 lbs. in 1935, a small advance from the 1934 total of 663,956,000,000 lbs. The only soap oil to show an important increase in consumption was the fish and whale oil group. Where only 98,544,000,000 lbs. were used by the soap industry in 1934, a sharp advance to 138,410,000,000 lbs. was registered in 1935.

The detailed consumption table as compiled by the Bureau of the Census for all oils and fats for 1935 follows. Oils subjected to hydro-

FACTORY CONSUMPTION OF PRIMARY ANIMAL AND VEGETABLE FATS AND OILS,
BY CLASSES OF PRODUCTS, CALENDAR YEAR 1935

(Quantities in thousands of pounds)

KIND	TOTAL	Compounds and Vegetable Shortenings	Oleomar- garine	Other Edible Products	Soap	Paint and Varnish	Linoleum and Oilcloth	Printing Inks	Miscel- laneous Products	Loss In- cluding Foots
Total	4,494,287	1,543,461	306,275	323,021	1,312,690	404,705	81,031	18,000	288,688	216,416
Cottonseed oil	1,333,739	985,798	99,505	138,580	1,857	36	.....	13	3,978	103,972
Peanut oil	109,378	90,900	4,358	3,602	754	.....	.....	.....	154	9,610
Coconut oil	582,097	44,034	174,314	87,060	229,711	379	.....	2	3,525	43,072
Corn oil	56,121	2,815	32	36,122	2,828	329	.....	.....	3,786	10,209
Soybean oil	91,166	52,452	1,740	9,421	2,549	13,003	4,816	52	1,665	5,468
Olive oil, edible	2,432	.....	.....	2,213	33	.....	.....	.....	186	.....
Olive oil, inedible	10,703	.....	.....	.....	1,690	.....	.....	.....	9,013	.....
Sulphur oil or olive foots	31,860	.....	.....	.....	31,507	.....	.....	.....	353	.....
Palm-kernel oil	57,025	825	425	14,895	37,173	.....	.....	.....	46	3,661
Rapeseed oil	35,802	15,575	.....	460	8,001	168	23	1	10,909	665
Linseed oil	291,684	57	.....	.....	1,196	230,146	41,809	14,266	4,205	5
China wood oil	114,287	.....	.....	.....	98,435	10,391	2,013	3,448	.....	.....
Perilla oil	41,609	55	.....	.....	16	27,164	9,650	828	3,894	2
Castor oil	25,762	.....	.....	.....	1,056	3,480	477	101	20,648	.....
Palm oil	251,393	114,362	3	3,414	87,311	1	.....	.....	*17,100	29,192
Sesame oil	54,252	34,967	77	14,605	749	.....	.....	.....	58	3,796
Sunflower oil	12,402	10,896	100	910	103	310	.....	.....	.....	83
Other vegetable oils	29,680	12,839	**1,878	2,693	4,762	1,929	.....	.....	3,697	1,882
Lard	9,429	2,252	3,005	3,903	1	.....	.....	4	203	61
Edible animal stearin	34,161	27,026	2,612	3,901	338	.....	.....	.....	284	.....
Oleo oil	18,620	126	18,226	86	93	.....	.....	.....	89	.....
Tallow, edible	124,882	120,384	.....	1,156	1,431	.....	.....	2	1,655	254
Tallow, inedible	718,357	.....	.....	.....	663,002	106	.....	9	54,804	436
Grease	200,222	.....	.....	.....	98,086	77	.....	349	101,159	551
Neat's-foot oil	6,626	.....	.....	.....	33	157	.....	1	6,216	219
Marine animal oils	30,963	427	.....	.....	28,440	34	.....	4	1,983	75
Fish oils	219,635	27,671	.....	.....	109,970	28,951	13,865	354	35,621	3,203

* Includes 14,594 thousand pounds reported by the tin and terne plate industry. ** Includes 1,838 thousand pounds babassu oil.

genation or other treatment for special uses were reported as consumed in the products for which intended. For example, oils treated for soap or for margarin are entered in these columns.

The oil and fat consumption of the United States for all purposes last year was 4,494,287,000 lbs., an increase of 11½ per cent over the figure for 1934, which was 4,028,003,000 lbs. This increase came on top of a 15 per cent gain in 1934 and a 4½ per cent gain in the previous year. The largest increases in

	1933	1934	1935
Coconut Oil	322,264,000	341,124,000	229,711,000
Palm Oil	187,962,000	154,704,000	87,311,000
Olive Foot	31,878,000	30,411,000	31,507,000
Tallow	508,824,000	663,956,000	664,433,000
Grease	124,743,000	142,782,000	98,086,000
Fish-Whale Oil	97,000,000	98,544,000	138,410,000

fat consumption in 1935 came in the edible group. The compound and vegetable shortening industry took 1,543,461,000 lbs. of fats in 1935, as compared with 1,214,742,000 lbs. in 1934, taking first place away from the soap industry for the first time as the country's most important fat consuming industry.

The table herewith shows the consumption in pounds of leading oils and fats (not including foots) at the soap kettle for the past three years:

* All figures in this analysis of oil and fat consumption are based on the annual reports of the U. S. Bureau of the Census for 1935 (just issued) and for previous years.

Soap Market Survey

(From Page 36)

it seems many Milwaukee families have switched over to products of this type and have discontinued use of such products as package soap flakes or chips, soap crystals or water softeners, and washing powders. In January, 1935, 56.2 per cent of all Milwaukee families were using granulated soap or soap beads. In January, 1936, this percentage had increased to 67.7 per cent. Not only are there now more families using these products, but the average consumption per family has advanced substantially. Where a year ago the average monthly consumption was 3.3 packages, this year it is 4 packages according to the latest figures. "Rinso" again leads the field, with 46.4 per cent, but its margin over "Oxydol", with 40.2 per cent, has been cut substantially from last year's figures. The complete list of figures for products of this type follows:

Brand	1936	1935
	%	%
Rinso	46.4	50.8
Oxydol	40.2	37.3
Super Suds	23.3	19.3
Silver Dust	15.7	
Palmolive Beads	8.5	15.3
Ivory Snow	3.0	4.1
Chips Granules	1.7	2.2
Miscellaneous	1.5	1.6

In the soap crystal and water softener group the number of users dropped from 37.6 per cent a year ago to 32.2 per cent this year. Average monthly consumption per family remains unchanged at 1.8 packages. "Climalene" continues to

be the leading seller, with a percentage of 55.4. Other brands are reported in use as follows:

Brand	1936	1935
	%	%
Climalene	55.4	56.2
No Name	10.0	8.5
Magnetic	6.9	6.9
4-M	6.1	6.4
Lite	3.8	5.1
Rex	3.1	3.7
Melo	2.8	2.0
Lazy Man's Cleaner	2.5	2.7
Olo	1.9	1.9
Steinmeyer's	1.1	1.6
Miscellaneous	9.4	8.4

The downward swing in the use of washing powders continued this year. The 1935 report showed that 9.6 per cent of Milwaukee families were using products in this class, and this year's figures indicate a decline to 7.7 per cent. Average monthly consumption per family is also lower—being 1.9 packages as against 2 a year ago. "Gold Dust" holds its place as the leading seller with a mark of 70.9 per cent and the other brands rank as follows:

Brand	1936	1935	1929
	%	%	%
Gold Dust	70.9	69.2	55.5
Johnson's	4.6	5.6	9.3
Kao	4.0	1.7	...
O. K.	3.7		
Star	2.3	3.6	11.6
Watkins	1.7	2.0	...
Lighthouse	1.3	1.0	...
Superior	1.1	5.6	...
Miscellaneous	11.2	12.9	25.8

Little change from a year ago is shown in the data on scouring cleansers. The percentage of Milwaukee families using scouring cleanser is reported as 90.8 per cent this year as compared with 90.1 per cent last year. Average monthly

consumption per family remains at 2.8 cans which has been a fairly constant figure over a long period. "Kitchen Klenzer" is still the leading brand with a mark of 39.5 per cent, although it has lost considerable ground since last year when it was in use in 44.9 per cent of all families using this type product.

Brand	1936	1935	1934
	%	%	%
Kitchen Klenzer	39.5	44.9	51.2
Old Dutch	23.0	21.8	19.8
Sunbrite	11.6	12.9	9.5
Gold Dust	8.3	8.5	8.1
Brite-Ize	6.6	1.2	
Bab-O	4.8	3.8	3.7
Bon Ami	4.1	5.0	4.2
Lighthouse	3.6	3.8	4.0
Miscellaneous	2.1	1.8	2.2

Offer Soap Export List

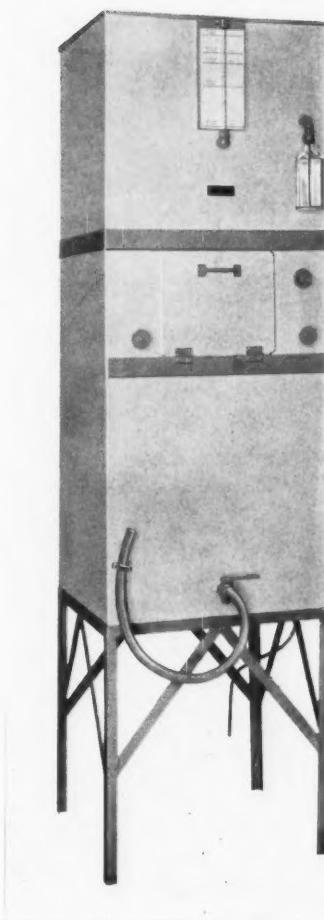
American soap and soap raw material manufacturers and dealers interested in foreign trade may procure a list of soap manufacturers and importers in China, Japan and Netherland India upon application to the Chemical Division of the U. S. Bureau of Foreign and Domestic Commerce. Total exports of all classes of soaps from the United States during 1935 aggregated 27,120,000 pounds, valued at \$2,583,600, compared with 23,541,000, valued at \$2,108,400, for the preceding year. Practically every type of soap entering into export trade during 1935 shared in the gain, particularly toilet soaps of the better grades, and American soap of one kind or another was sold to every country of the world during the year.

Liquid Soap Converter

A MACHINE for converting soap base into clear liquid soap, using water from any city water supply, has just been patented by Arthur L. Bobrick of Bobrick Manufacturing Corp., Los Angeles. U. S. Patent No. 2,032,524 was issued Mar. 3, 1936, covering the new Bobrick Liquid Soap Converter. We are advised that the new device is for sale to soap manufacturers and jobbers only, for their own use, and not to consumers. A number have been in use on the Pacific coast over the past two years and are said to have proved very satisfactory in operation.

An important feature of the new machine is that it dispenses with the necessity for using distilled water which is ordinarily necessary in order to make liquid soap from base. This is accomplished by incorporating a water softening device in the machine. The converter consists of two tanks, one above the other. It is in the top tank that the water is treated, the solution being supplied by the maker of the machine in bottles, each one holding enough to treat a single tank of water. The cost of treating the water is said to be only a fraction of a cent per gallon.

After the water, drawn from the regular water supply, has been treated and then allowed to stand for 24 hours, it is ready for use. The proper amount of base is then put into the lower tank through a hopper and the valve connecting the two tanks is opened. The treated water then flows through a pipe into the lower part of the lower tank. The lower tank is equipped with a screen and floats. As the water rises in the tank these floats raise the screen, thus keeping the base always in the lighter water. As the base dissolves the heavier soap solution settles to the bottom. This in turn causes the water to rise, giving automatic circulation and making it un-



necessary to use any heat or agitation to dissolve the base.

Different concentrations of soap require different setting of the machine, of course. The upper tank is filled with water to different levels according to the grade of soap which it is desired to make. The base for 15 per cent soap should dissolve in 4 to 5 hours, it is said. Then after standing for 24 hours it is ready to be drawn off. While it is settling, another tank full of water can be treated in the upper section. The capacity of the regular model is 55 gallons every 24 hours.

The machine itself is con-

structed from iron treated to make it rust and alkali-proof. The outside is finished in two colors in an alkali and soap-proof lacquer. There are no motors or pumps to require attention, the only moving part being the floating screen. The height is 7 feet 3 inches over all, with a base 24 inches by 24.

Talks On Essential Oils

Dr. Ernest Guenther, chief research chemist for Fritzsche Bros., Inc., New York essential oil house, has just returned from New England where he delivered a series of illustrated lectures on the production of American and European essential oils. During his talks, Dr. Guenther showed five reels of colored motion pictures taken by him on recent journeys abroad and to the essential oil producing centers of the United States. Two of his lectures were given before groups at the Massachusetts College of Pharmacy, while a third was attended by chemists from the Massachusetts Institute of Technology and Harvard. Another private showing at the Copley Plaza Hotel in Boston was attended by a number of local manufacturers and large users of essential oils.

New M. M. & R. Representative

J. B. Magnus, vice-president of Magnus, Mabee & Reynard, Inc., New York essential oil house, has announced the appointment of Ralph S. Barlow as Massachusetts, Vermont, Rhode Island and Maine sales representative. His appointment became effective April 1st. Mr. Barlow will make his headquarters in Boston. He succeeds Harry K. Mundorf.

New Plant for Mechling

Mechling Bros. Chemical Co., Camden, N. J., chemicals and insecticides, is to move in the near future into a new two-story building erected at a cost of \$25,000.



**ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES**
For the Soap and Insecticide Industries

A U B E P I N E TERPINEOL HELIOTROPINE

These are three important odor materials for
every soap maker.

Our Products —

are free from foreign by-odors and of uniform
high quality—Sold at low prices for prompt or
future shipment.

DODGE & OLCOTT COMPANY
180 Varick Street . . . New York

BRANCHES: PHILADELPHIA — BOSTON — CHICAGO — ST. LOUIS — LOS ANGELES

"The integrity of the house is reflected in the quality of its products." — Copyright 1930

NEWS

Lever Safest Soap Plant

The plant of Lever Brothers Co. at Cambridge, Mass., was recently awarded the Governor James M. Curley Trophy for 1935 in the state-wide accident reduction contest sponsored by the Massachusetts Safety Council. The trophy is awarded annually by the Governor to the plant in Massachusetts showing the greatest progress in accident prevention. According to the National Safety Council, the Cambridge plant of Lever Brothers Co. had the lowest frequency rate in 1935 for accidents among the large plants of the American soap manufacturing industry. This is stated to be the fourth consecutive year that one of the Lever American plants has had this distinction.

Special Mennen Deals

Mennen Co., Newark, N. J., is offering two new special deals to retailers. One deal includes four 25-cent size Mennen antiseptic powder free with each order for three dozen, and the other deal offers the druggist an extra 5 per cent profit on an assortment of Mennen shaving preparations.

U. S. Soapers Ahead

The soap industry of the United States, as well as the cosmetic, perfume, and toilet goods industries, is far ahead of anything in Europe, according to Pauline Zhamchuzhina, head of the Tezhe Trust of Soviet Russia, which manufactures most of the cosmetics and toilet soaps for that country. This was the conclusion expressed upon her return recently to Moscow after a tour embracing most of Europe and the United States. This woman who has become famous in Russia for her accomplishments in soap and cosmetic manufacture, is in

private life the wife of Molotoff, high Soviet official. (See April, 1935, issue of SOAP.) Mme. Molotoff returned to Moscow full of enthusiasm for the American soap and cosmetic industries, and urged that Soviet study American methods and products, because they lead the world in quality as well as quantity of production.

Eckerman Vice-Pres.

E. G. Eckerman, associated with the sales department of the



E. G. Eckerman

Davies-Young Soap Co., Dayton, O., for the past twenty-five years, has been elected a vice-president of the company, according to an announcement by C. F. Young, president. Mr. Eckerman is in charge of the department of laundry and dry cleaning products.

Fay in Europe

Kenneth C. Fay, president of Parfumerie de Raymond, New York, is spending two months in Europe, primarily to supervise the establishment of a London branch for his firm. He is making his headquarters in London, but is also planning on spending some time in France and Switzerland investigating the situation in flower oils. He will return to New York about June 1.

Bon Ami Contest

Bon Ami Co., New York, is sponsoring a "Bathtub and Sink" contest, in which it is giving 135 prizes, totaling \$5,000. Contestants are asked to write a letter of 200 words or less, describing what they like about Bon Ami for use in household cleaning.

Checks Unfair Soap Sale

Victor Soap Co., Dayton, O., trading as Royal Soap Co. and as Heick Soap Co., has been ordered by the U. S. Federal Trade Commission to discontinue unfair methods of competition in the sale of soaps. Specifically, the respondent is prohibited from representing that it guarantees the financial success of its agents or that these agents earn incomes in excess of the average income made by the average agent employed by the Victor concern. The respondent is also directed to cease making assertions that its boxes of soap, or boxes of soap similar thereto, are sold in retail stores for \$1, or for any other price which is higher than the customary price at which soap is customarily sold in retail stores. The claim that one of the seven cakes of soap in the boxes will kill germs also is to be discontinued.

Gateway Chemical Moves

Gateway Chemical Co., 919 West Seventeenth St., Kansas City, building service supplies, is moving to a new location at 1414 Walnut St. Searcy Ridge organized the company in 1923 with a \$5,000 capital. Business has increased to such an extent that capital has since been increased to \$35,000. In the new location the concern will have a two-story and basement building with a frontage of fifty feet. Geo. M. Thompson is vice-president and sales manager.

The image is a vintage black and white advertisement. At the top, the words "MODEL S" are written in a large, bold, italicized font, flanked by horizontal lines. Between "S" and "FOR" is a small graphic of a washing tub with a clothespin. To the right of "FOR" is another large "S" followed by the words "SPEED and SAVINGS" in a bold, italicized font. Below this text is a detailed illustration of a vintage laundry machine, possibly a washboard or a wringer. In the bottom left corner, there is a box of Lux soap, which is rectangular with a striped pattern and the word "LUX" printed on it twice.

Leading Wrapping Machine in the Toilet Soap Field

The Model S has made a reputation in the toilet-soap field for speedy production—resulting in real savings in wrapping costs. Turns out 150 wrapped cakes per minute, which is about twice as fast as former machines it has replaced. This means utmost economy of labor and floor space.

The extremely neat wrapping it produces is in keeping with a fine quality product . . . And it has proved its dependability by its service in leading soap factories.

Can be fed directly from the

soap press to the belt-feed conveyor on the machine.

By means of adjustments provided and the use of interchangeable parts, more than one size can be wrapped on the same machine.

In addition to this widely used machine, we have built special machines to meet particular requirements. Our long experience in serving soap manufacturers and our complete facilities should prove valuable to you in solving your wrapping problems. Consult our nearest office.

PACKAGE MACHINERY COMPANY

Springfield, Massachusetts

NEW YORK

Springer
CHICAGO

LOS ANGELES

MEXICO D. F. Apartado 2303

Peterborough, England: Baker Perkins, Ltd.
Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY

Over 200 Million Packages per day are wrapped on our Machines

Hewitt Buys Cincinnati Soap

Hewitt Soap Co., Dayton, O., has purchased the plant and business of the Cincinnati Soap Co., Cincinnati. The Cincinnati firm, founded in 1863, has sold its entire line to Hewitt except its well-known Grandpa Wonder Soap, a pine tar soap which has been manufactured since 1878. A new company has been formed, known as the Grandpa Soap Co. with headquarters in Cincinnati, to market this soap. The Grandpa firm is headed by Albert M. Steiner, formerly vice-president of Cincinnati Soap. Other officers are Eugene H. Sterne, formerly president of Cincinnati Soap, treasurer, H. S. Livingston, secretary, and Maurice Bernstein, vice-president. Grandpa Soap will be manufactured for the new company by Hewitt.

Hewitt Soap is reported to have paid \$500,000 for the Cincinnati business and properties. Cincinnati Soap's chief manufacturing operations have been housed in the old Beaver - Remmers - Graham plant in Dayton since it acquired that factory in 1928. It is understood that this plant will be abandoned and the equipment sold, and that a large addition will be built to the present Hewitt plant, sufficient to boost its production to over forty million pounds of soap annually. The new Hewitt set-up will employ over 500 people. The Hewitt firm was founded in 1884, and is reputed to do a business of some two million annually to which a million-and-a-half yearly sales of Cincinnati Soap will be added.

James M. Hewitt is president of the Hewitt Soap Co. The firm has had a remarkable expansion during the past ten years, especially in the field of private brand soaps. Several years ago, stock control of the company was purchased by Procter & Gamble Co. but no change in personnel was made, the company continuing to operate independently of the parent firm and competing with it. Martin Schulties in charge of Eastern sales and the New York branch of Hewitt, is vice-president. Samuel L.

Finn is secretary. Construction of the new Hewitt plant addition will start in the immediate future.

Soap Exemption Certificates

Manufacturers who sell soaps and soap products which come under the five per cent U. S. excise tax, report that in many cases on sales of products such as liquid toilet soaps, shampoo base, bar toilet soaps, etc. to government departments, cities, states, etc., they are being required to submit certificates of exemption on every individual sale of such products, where exemption from the tax is claimed. Manufacturers who have reported about this more stringent requirement of the Internal Revenue Department are located in the middle-western areas.

This matter was the subject of a decision by the U. S. Treasury last November 12, 1935, which seemed to eliminate the necessity of these multiple certificates of exemption. In decision No. 4605 by Jos. C. Roche, p. 3, it was stated: "If it is impracticable to furnish a separate certificate for each order or contract, a certificate covering all orders between given dates (such period not to exceed a calendar month) will be acceptable." Apparently in view of these recent reports from soap makers in the mid-west some Internal Revenue offices may not have heard of this decision or may have their own definition of "impracticability."

Thanks Soap Advertisers

In an article captioned "Do You Bathe?" in a recent issue of *Printers' Ink* weekly, Mark O'Dea pays a compliment to soap makers for their many years of devoting advertising appropriations to advancing the now popular habit of bathing. The author calls attention to the fact that in the early days of advertising the mention of bathing and habits of personal cleanliness was considered in rather bad taste

by a large section of the reading public. He gives credit to soap advertisers for their help in overcoming this attitude.

British Soaper Raises Dividend

A dividend of 5 per cent on the ordinary shares of Wright Layman and Umney, Ltd., British soap manufacturing concern, for the year ended December 31, 1935, was paid on April 8. On that date a distribution of 2½d. (4½ cents) per share was also made ex investment realization profits. As a distribution of 9¾d. (19½ cents) per share was made from this source last September 30, the net distribution on the ordinary shares for 1935 is slightly in excess of that for 1934, when 10 per cent was paid.

Lever's Profits at New High

Lever Brothers, Ltd., worldwide soap concern, reports that the year 1935 yielded the largest profit in its history. The accounts for 1935 show an increase from the high figure reported in the previous year, the net profit rising from £6,302,875 to £6,951,187 (\$34,755,435). The Lever board has again dealt conservatively with the added profit. Besides allocating £250,000 to contingency reserve and a similar amount to general reserve, £300,000 this year is placed to reserve against shares held in allied companies. The dividend on the ordinary stock remains at 15 per cent, but as the amount issued was increased during the year by £2,000,000 to £8,500,000, the dividend requires £1,275,000 instead of £975,000. The sum carried forward is raised from £306,779 to £394,653. The additional capital has been used to strengthen the liquid resources of the subsidiary companies, for the principal change in the balance sheet is a rise in advances on current account to these companies from £153,727 to £1,962,465.

Vestal Names Adv. Agent

Vestal Chemical Laboratories, Inc., St. Louis, has appointed the Clifford F. Broeder Agency, of that city, to direct its advertising account.

LIQUID SCRUBBING SOAPS

containing YARMOR 302

are powerful solvents for grease and dirt. They clean rapidly and efficiently. These soaps are economical, and, besides cleaning thoroughly, they preserve the surfaces on which they are used. Recommended for use on the finest finishes.

☆ We supply **Yarmor 302 Steam-distilled Pine Oil** to manufacturers of liquid scrubbing soaps.

HERCULES NAVAL STORES
HERCULES POWDER COMPANY
INCORPORATED



961 Market Street, Wilmington, Delaware

Return the coupon for further information



BRANCH OFFICES

Chicago
New York
Philadelphia
St. Louis
Salt Lake City
San Francisco

HERCULES POWDER COMPANY, 961 MARKET STREET, WILMINGTON, DELAWARE

Please send information about the value of Yarmor 302 in liquid scrubbing soaps.

Name _____

Company _____

Street _____

City _____

State _____

QQ-55

Max Factor Goes British

Max Factor, Hollywood producer of cosmetics, will open a replica of his Hollywood make-up studio and cosmetic laboratories in London. Construction is under way on the manufacturing establishment at 17 Gorst Road, Park Royal, London, while a smart make-up studio has already been established in swanky old Bond St. Davis Factor, general manager of Max Factor & Co., Hollywood, has been in London for the past four months planning and supervising the new English plant. Frank Factor left for England a month ago to take charge of the British end of the business. His departure marks the seventh representative of the Factor firm to go to England during the past two months, those preceding being Davis Factor, Dr. A. T. Frascati, Sidney Smith, Maree Coffey, Harry Mendlen, and Steve Ferentzy. The original Factor business was established as a small beauty salon in Los Angeles twenty-six years ago by Max Factor.

Soviet Soap Output Up

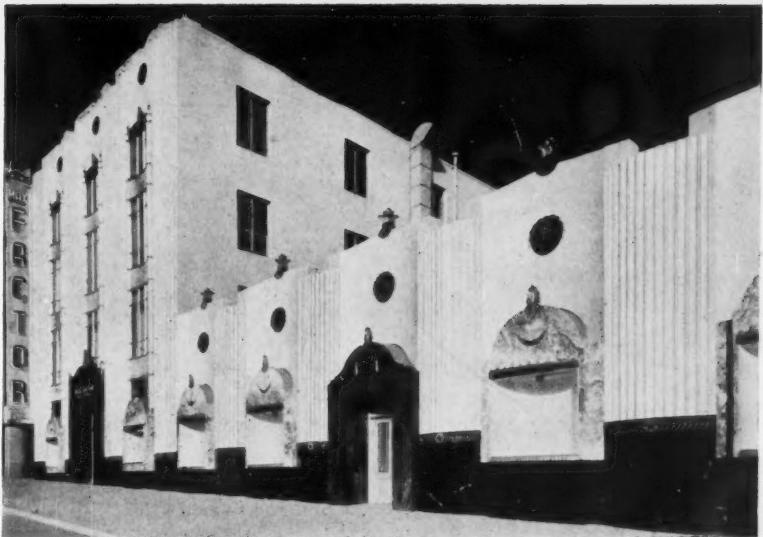
The production of soap in Soviet Russia has increased three-fold during the last three years. Last year the factories produced 66,500 tons of household soap and 15,500 tons of toilet soap. The output for 1936 is estimated at 75,000 tons of the former and 17,500 tons of the latter.

Advertise "Glo" Cleanser

Newspaper and radio advertising are being used in a new campaign on "Glo," an aluminum cleanser, product of James H. Rhodes & Co., Chicago. The first advertisements appeared in Chicago last month. The campaign will be extended to Cincinnati immediately and other cities later.

Govt. Appeals Haskins Case

An appeal was filed by the U. S. Treasury Department, April 10, against the preliminary injunction previously obtained by Haskins Bros. & Co., Omaha soap makers, restrain-



To be duplicated by Max Factor in London.

ing the government from further collection of the three-cent coconut oil excise tax from the Haskins concern. Ordinarily the appeal would come up for hearing at the October term at Omaha, but effort may be made to have it heard instead with the Iowa Soap Co. case at St. Paul on June 2. Incidentally, there has been some confusion in the trade as to the exact meaning of the Supreme Court's decision in refusing to grant a writ of certiorari in the Iowa Soap Co. case. A legal authority in the soap industry points out that the Supreme Court in its recent decision did not pass on the constitutionality or unconstitutionality of the tax. It merely ruled that the case was not of enough importance to break the usual routine of legal procedure. Thus this case will go through the Eighth Circuit Court of Appeals in the normal course, before arriving at the Supreme Court for the eventual decision on its constitutionality.

Soapers Meet in Chicago

Under the auspices of the Association of American Soap & Glycerine Producers, a meeting of mid-west soap manufacturers was held at the Blackstone Hotel in Chicago on April 2. S. Bayard Colgate, president of the Association, presided. Discussions and reports at the meeting covered state and federal legislation, including new proposed taxes, the coconut oil tax and the status of cases under recent court rulings, the soap sales census, glycerine promotional efforts, and the work of the Association. Mr. Colgate in addressing the thirty-three soap manufacturers present, urged that all manufacturers in the industry join with the Association and participate in solving the common problems of the industry.

After paying tribute to R. R. Deupree of Procter & Gamble Co., president of the Association for several years past, Mr. Colgate said:

"As to problems that confront our industry, I doubt if anyone feels that today's profit system in soap manufacturing is satisfactory; or that soap consumption has advanced as it should; or that promotional and sales practices are on a satisfactory plane; or that glycerine markets are safe from competition or substitution; or that the industry has developed all the cooperation that it

SCOURING POWDERS

Do not miss the article on Scouring Powders, their composition, characteristics, and manufacture,—the results of an interesting piece of research work by Ralph H. Auch,—in the June issue of SOAP.

Fine Essential Oils

for

Toilet Soap Manufacturers

GERANIUM AFRICAN
GERANIUM BOURBON

LAVENDER FLOWERS
VETIVERT BOURBON

PETIT GRAIN ALGERIAN

YLANG YLANG BOURBON
YLANG YLANG NOSSI BE



In addition to a complete line of essential oils and other natural flower products, we are headquarters for Roure-Bertrand and Justin Dupont perfume specialties . . . products which have gained a world-wide reputation as representative of the best in modern perfuming. No matter what your problem is, our American laboratory, working closely with our laboratories abroad, can undoubtedly make some worthwhile suggestions. Which of your products are you most anxious to improve?



ROURE-BERTRAND FILS and JUSTIN DUPONT

Laragne

Boufarik

PARIS

GRASSE

Argenteuil

Sole Representative in the United States and Canada

GEORGE SILVER IMPORT COMPANY
351-53 FOURTH AVENUE (Phone: MURRAY HILL 4-7797) NEW YORK

CHICAGO: 722 West Austin Ave. (Phone: HAYmarket 0991)
LOS ANGELES: 819 Santee St., Room 622 (Phone: TUCKER 6453)

can; or that we should do nothing when legislative proposals come up, as they do almost every month, to levy upon our products taxes, regulations, and other burdens that we believe to be ill-conceived, unnecessary, and not in the public interest.

I say I doubt if any one of us feels that problems of this character have been satisfactorily solved. If this is true, the most effective way to deal with these matters is through our industry Association. This is not one of those things wherein any company can take the attitude of letting George do it. If we are to pull together, we must get together; and the Association is the natural center at which to rally.

In my view, therefore, this is not the time for a company to hold back from active participation. On the contrary, it is peculiarly a time when we need the thoughtful and active support of every producer—large, medium-sized, or small."

Holbrook Mfg. Reorganizes

Holbrook Manufacturing Co., Jersey City, N. J., which has been operating under a receivership since the first of April, is reported planning a reorganization of the firm. It is understood that James S. MacIntosh, general manager for some years past and who has been associated with the company since 1904, will head the reorganized firm. Edward C. Schultze is acting as receiver. The company was founded in 1847 and is one of the oldest manufacturers of industrial soaps, textile and chip soaps.

Construction at Port Ivory

James W. Bassett, plant superintendent at the Port Ivory plant of Procter & Gamble Co., reports that two new buildings will shortly be added. A thirty-year old building which at present houses the "Ivory" flake and granule department will be torn down and be replaced by a one-story brick building. Plans also call for conversion of a corrugated iron temporary building into a three-story brick building.

May, 1936

Contracts Awarded

Fort Sill Soap Powder

Conray Products Co., New York, has just received an award on its bid of 3.24c covering 5,000 lbs. soap powder for Fort Sill, Oklahoma.

Soap Award to Crystal

Crystal Soap & Chemical Co., Philadelphia, was the successful bidder on two lots of soft soap in a bidding opened recently by the Brooklyn Medical Department. Awards were made to Crystal on 1,100 drums of soft soap at \$1.633 and on 2,500 jars at 12.4c.

Low Insecticide Bidder

H. H. Plowfield, West Lawn, Pa., was low bidder on 550 gals. insecticide in a bidding opened recently by the U. S. Marine Corps, Washington, D. C., with a quotation of 46.8c. Other bids ranged up to as high as \$1.81.

P. & G. Laundry Soap Award

Procter & Gamble Distributing Co. has recently been awarded a contract by the Jeffersonville, Ind., U. S. Army Quartermaster calling for 100,670 lbs. ordinary unwrapped laundry soap at a price of 3.21c per lb. Hunnewell Soap Co., Cincinnati, awarded the contract on 12,844 11-oz. cakes of grit soap at 1.9c per cake.

Armour Scouring Award

Armour & Co. have been awarded a recent contract covering 120,000 lbs. soap scouring compound for the U. S. Post Office Department, Washington, at a price of 1.41c per pound.

Laundry Soap to Iowa

Iowa Soap Co., Burlington, Iowa, has recently been awarded a contract calling for 30,000 lbs. unwrapped laundry soap for the Jeffersonville, Ind., U. S. Army Quartermaster at a price of 3.7c.

Leather Soap Award

R. M. Hollingshead Corp., Camden, N. J., has been awarded a contract to supply 8,950 lbs. leather soap to Fort Sam Houston, Texas, at a price of 8.5c. The award on 5,000 cakes stove polish went to Jos. Dixon Crucible Co., Jersey City, at a price of 4.3c.

Private Brand Tax Rules

A new ruling by the general counsel of the U. S. Treasury Department (G.C.M. 16223) which presumably applies to the taxation of toilet soap as much as to cosmetics holds that—a company which controls the production and disposition of cosmetics fabricated for it by another company, is the manufacturer or producer thereof within the meaning of section 603 of the Revenue Act of 1932. The effect of the new ruling, which modifies G.C.M. 11522, known as the "Charest Ruling", is to require the owner of the name or trade mark under which cosmetics, manufactured by another, are sold, to pay the federal excise tax on such owner's selling price, rather than to permit the one who physically manufactures such cosmetics to pay the tax on the price charged the owner of the name or trade mark. In making the ruling, the general counsel stated that in this class of cases, no general rule can be formulated which would be controlling under all circumstances and that each decision must necessarily rest upon the particular facts in each case.

Chicago Soap Ass'n Party

Gold Coast Room of the Drake Hotel was the scene on April 21st of the most successful spring party the Chicago Perfumery, Soap and Extract Association have ever had. Dinner was followed by dancing to the music of Jack Hylton's orchestra and entertainment by the Continental Revue.

YOUR PERMANENT SOAP Salesman

Bobrick's NUMBER 7 **SOP-O-ZON DISPENSER**

EVERY No. 7 SOP-O-ZON Dispenser that you install is a permanent soap salesman for you. They stay on the job day and night, year after year, without attention or repairs.

Our original No. 3—the forefather of the present No. 7—was a good dispenser. You see many of them today that have been in use for 10, 15, even 20 years, steadily dispensing soap. The No. 7 with the new Improved SOP-O-ZON Valve is even better.

Don't Make Dissatisfied Customers

It is, of course, easier for salesmen to sell your customers cheap soap dispensers, but what's the use of wasting time, effort and money if the dispensers are going to quickly get out of order. Aside from the fact cheap dispensers, when out of order, do not use your soap, they are bound to make dissatisfied customers who will probably look elsewhere for soap requirements next time.

Good Dispensers Increase Profits

Not only do good dispensers make you more money by using soap regularly, but they make you a good profit on each sale, instead of merely trading dollars as you have to do with cheap dispensers. Try a dozen No. 7's and prove this fact to yourself.

If the No. 7 does not exactly fill your need, we have 34 other models for you to choose from. Write for FREE catalogue with distributors' prices



No. 7 Chromium Plated

DESCRIPTION

Body and bracket made of heavy bronze in one piece. Piston of stainless steel. Famous new SOP-O-ZON Valve insures perfect operation. Filler cap made of brass hinged to top and equipped with a lock. Cannot be stolen. Clear glass globe cemented into body and top cemented on. Capacity 12 ounces. Height 6½ inches. Push button 6½" from wall. Soap spout 5" from wall.

THE VALVE

Discharges the soap on the inward stroke. No matter how hard the soap may dry around the spout the pressure created by pushing the plunger in will always break it loose. SOP-O-ZON Valves cannot leak or drip. The cylinders and pistons are ground to fit and double sealed with the special rubber composition washers. The entire valve may be removed for cleaning or inspection by removing the push button and one screw.

LOCK TOP

This model is equipped with the exclusive SOP-O-ZON lock top. It is a simple spring latch attached to the hinged top and locks automatically when the top is closed. Cannot be opened with pencils or hair pins, but is easily opened with the small key furnished with each dispenser. Tops are hinged and cannot be stolen or lost. Lock tops prevent dropping matches, cigarettes, etc., into the dispenser.

BOBRICK MANUFACTURING CORPORATION

111-117 SO. GAREY STREET
LOS ANGELES, CALIFORNIA

Manufacturers of Soap
Dispensers For Over 30 Years

215 FOURTH AVENUE
NEW YORK CITY

Serving the Soap Manufacturer and Jobber ONLY

New Trade Marks

The following trade-marks were published in the April issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

VALSMOOTH—This in solid letters describing brushless shaving cream. Filed by Valco Laboratories, Cincinnati, Jan. 8, 1936. Claims use since Dec. 27, 1935.

SWEET MUSIC—This in solid letters describing soap. Filed by M. Werk Co., St. Bernard, Ohio, Jan. 22, 1936. Claims use since Jan. 6, 1936.

POLIDENT—This in solid letters describing denture cleaner. Filed by Wernet Dental Mfg. Co., Brooklyn, Feb. 4, 1936. Claims use since Nov. 1, 1935.

SO-DIFF—This in solid letters describing shampoo. Filed by Henry W. Hilker, San Francisco, Sept. 7, 1935. Claims use since July 1, 1935.

FLIGHT—This on rectangular reverse plate, with reverse of aeroplane, describing toilet soap, shaving soap, etc. Filed by Twin Products Co., Los Angeles, Dec. 7, 1935. Claims use since Nov. 25, 1935.

JOCKEY—This in solid letters on package carrying sketch of race horses, describing shaving creams. Filed by Jockey Razor Blade Co., New York, Feb. 8, 1936. Claims use since May 23, 1935.

CAMPUS—This in solid letters describing toothpowder. Filed by Campus Co., Dodge City, Kans., Oct. 12, 1935. Claims use since Aug. 15, 1935.

ORIENTAL—This in solid letters describing moth product. Filed by Lewy Chemical Co., New York.

Dec. 23, 1935. Claims use since Dec. 13, 1935.

IVIS—This in solid letters describing mouth wash and dentifrice. Filed by Ivis Co., Buffalo, Jan. 20, 1936. Claims use since July 15, 1930.

GAS-O-CIDE—This in solid letters describing insecticide for use in flour mills. Filed by Midland Chemical Laboratories, Dubuque, Feb. 3, 1936. Claims use since Feb. 2, 1931.

GERMOLYPTUS—This in solid letters describing germicide, disinfectant, antiseptic, deodorant, etc. Filed by Midland Chemical Laboratories, Dubuque, Feb. 3, 1936. Claims use since Dec. 15, 1932.

YARLE—This in solid letters describing liquid soap shampoo. Filed by Yarle Co., Asheville, N. C., Feb. 5, 1936. Claims use since Aug. 7, 1935.

SOL-KLEAN—This in solid letters with large letter "S" in outline, describing fabric cleaner. Filed by Industrial Chemical Products Co., Detroit, Sept. 20, 1935. Claims use since 1930.

GLITTER SUPER—This in outline letters describing cleaner. Filed by Glitter Products, Inc., Detroit, Feb. 6, 1936. Claims use since Dec. 7, 1935.

SANDRA—This in script describing soaps of all types. Filed by Shulton, Inc., New York, Feb. 18, 1936. Claims use since Oct. 31, 1935.

VITO FOAM—This in shaded letters describing shampoo. Filed by Three Crowns Laboratory, Waterloo, Iowa, Jan. 8, 1936. Claims use since Nov. 20, 1934.

DENT-L-SAVER—This in solid letters describing dentifrice. Filed by W. A. Shenton & Co., Jersey City, Jan. 9, 1936. Claims use since Dec. 17, 1935.

GYMLOH—This in solid letters describing gymnasium floor finish. Filed by Midland Chemical Laboratories, Dubuque, Feb. 3, 1936. Claims use since Nov. 13, 1931.

GLITTER SUPER GLAZE—This in outline letters describing polish. Filed by Glitter Products, Inc., Detroit, Feb. 6, 1936. Claims use since Dec. 7, 1935.

ODORA—This in solid letters describing dry cleaning fluids. Filed by Odora Co., New York, Aug. 8, 1935. Claims use since March, 1929.

SUNSO—This in solid letters describing soaps and detergents. Filed by Cunningham Cleanser Corp., New York, Jan. 2, 1936. Claims use since June 9, 1925.

GOLDEN SUN—This in solid letters on package describing metal polish, liquid soap, pine scrub, liquid wax, etc. Filed by Golden Sun Chemical Co., New York, Feb. 1, 1936. Claims use since September, 1935.

AMMONIATED BENZAMO—This in solid letters describing dry cleaning paste soap. Filed by Midland Chemical Laboratories, Dubuque, Feb. 3, 1936. Claims use since June 7, 1926.

CHYPRON—This in solid letters describing toilet soap, bath soap, shaving soap, etc. Filed by Ferd. Mulhens, Inc., New York, Feb. 26, 1936. Claims use since Jan. 27, 1936.

BENO-PHENE—This in solid letters describing antiseptic, deodorant and germicide. Filed by B. H. M. Co., Los Angeles, Feb. 10, 1936. Claims use since Jan. 9, 1936.

SULFO-NAC—This in script on triangular base describing shampoo. Filed by Dermalab, Inc., Winnetka, Ill., Feb. 19, 1936. Claims use since Oct. 29, 1935.

DURA LUSTRE—This in solid letters describing polish. Filed by Floor Maintenance Bureau, Inc., Newark, N. J., Nov. 4, 1935. Claims use since Sept. 1, 1935.

EEZ-ON—This in solid letters with word "Bishop's" in script describing wax polish. Filed by Eez-On Products Co., Campgaw, N. J., Jan. 2, 1936. Claims use since Aug. 20, 1935.

CELL O FILM—This in solid letters describing polishing waxes. Filed by Cell Co., New Hope, Pa., Feb. 10, 1936. Claims use since Jan. 27, 1936.



Why not dated Soap?

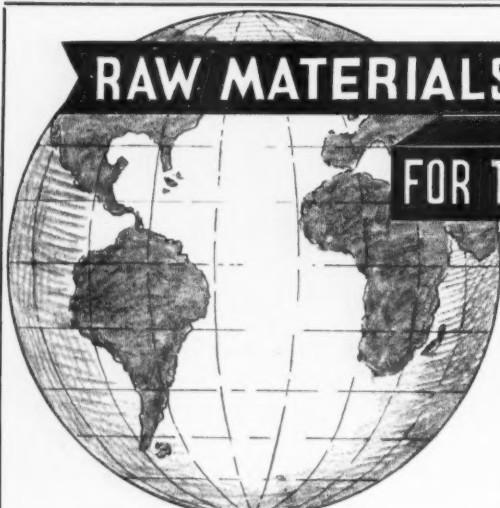
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Castor Oil
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Corn Oil
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Perilla Oil
Rapeseed Oil
Sesame Oil
Soya Bean Oil
Teased Oil

Fatty Acids
Lard Oils
Neatsfoot Oil
Oleo Stearine
Stearic Acid
White Olein

Tallow
Grease
Lanolin
Caustic Soda
Soda Ash
Caustic Potash
Carbonate Potash
Sal Soda

Modified Soda
Silicate Soda
Metasilicate
Tri Sodium Phosphate
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Chlorophyll
"CEREPS" Superfattening Agent

WELCH, HOLME & CLARK CO., Inc.
563 GREENWICH STREET, NEW YORK CITY

Established 1838

Trade Marks Granted

- 333,457. Shoe Polish. Kimia Laboratories, Paterson, N. J. Filed April 16, 1935. Serial No. 363,806. Published July 2, 1935. Class 4.
- 333,535. Cleaner for Railway Rolling Stock. Gregg Co., Philadelphia. Filed November 13, 1935. Serial No. 371,493. Published January 14, 1936. Class 4.
- 333,536. Hand Cleansers. Soaps. Harry I. Hull, Queens Village, N. Y. Filed November 13, 1935. Serial No. 371,495. Published January 14, 1936. Class 4.
- 333,541. Soap. M. Werk Co., St. Bernard, Ohio. Filed September 3, 1935. Serial No. 368,964. Published January 14, 1936. Class 4.
- 333,622. Glass Cleaning Solutions. Westoco Products, Inc., Kansas City. Filed November 15, 1935. Serial No. 371,613. Published January 21, 1936. Class 4.
- 333,636. Dental Cream Shampoo. William A. Webster Co., Memphis, Tenn. Filed November 4, 1935. Serial No. 371,193. Published January 7, 1936. Class 6.
- 333,677. Soap, Soap Powders, Household Cleanser, and Water Softener. Green Bay Soap Co., Green Bay, Wis. Filed October 4, 1935. Serial No. 370,031. Published January 21, 1936. Class 4.
- 333,687. Detergent Compound. Lever Brothers Co., Cambridge. Filed November 29, 1935. Serial No. 372,110. Published January 21, 1936. Class 4.
- 333,688. Detergent Compound. Lever Brothers Co., Cambridge. Filed November 29, 1935. Serial No. 372,109. Published January 21, 1936. Class 4.
- 333,689. Shaving Cream. Stewart W. Hughes, Chicago. Filed November 29, 1935. Serial No. 372,101. Published January 21, 1936. Class 4.
- 333,691. Cleaning Compositions. Carbide and Carbon Chemical Corp., New York. Filed November 14, 1935. Serial No. 371,524. Published January 21, 1936. Class 4.
- 333,737. Insecticides. Cardinal Laboratories, Inc., Chicago. Filed October 7, 1935. Serial No. 370,073. Published January 21, 1936. Class 6.
- 333,766. Water Softener, Deodorizer and Perfumer to be Mixed with Liquids to Improve the Cleansing Qualities. La France, Toledo, Co., Toledo, Ohio. Filed June 17, 1935. Serial No. 366,884. Published January 21, 1936. Class 6.
- TOILET SOAPS**
- Means and methods for the improvement of toilet soaps in the ordinary course of manufacture,—a study of the effects of raw materials and the pre-treatment of raw materials,—bleaching, boiling, drying, milling, and pressing,—an article by Joseph M. Vallance of Warrington, England, to be published in an early issue of SOAP.**
- 333,792. Water Softener. Blue Monday Products Co., St. Louis. Filed December 12, 1934. Serial No. 359,416. Published May 21, 1935. Class 6.
- 333,799. Furniture Polish. Glidden Co., Cleveland. Filed November 8, 1935. Serial No. 371,345. Published January 28, 1936. Class 16.
- 333,914. Insect Powder. John Albert Myers, Philadelphia. Filed November 14, 1935. Serial No. 371,551. Published January 21, 1936. Class 6.
- 333,924. Toilet Soap. Colgate-Palmolive-Peet Co., Jersey City, N. J. Filed August 9, 1935. Serial No. 368,127. Published January 28, 1936. Class 4.
- 333,930. Chemically Treated Soaps. Dinet and Delfosse, Chicago. Filed September 12, 1935. Serial No. 369,220. Published January 7, 1936. Class 4.
- 333,931. Chemically Treated Soaps. Dinet and Delfosse, Chicago. Filed September 12, 1935. Serial No. 369,221. Published January 7, 1936. Class 4.
- 333,936. Household Cleanser, Mechanic's Paste Soap and Metal and Glass Polish. Royal Soap & Chemical Co., Los Angeles. Filed October 4, 1935. Serial No. 370,018. Published January 28, 1936. Class 4.
- 333,952. Insecticides. South Florida Chemical Corp., Miami. Filed July 1, 1935. Serial No. 366,884. Published January 21, 1936. Class 6.
- 333,975. Bath Salt. Standard Salt Corp., New York. Filed November 29, 1935. Serial No. 372,117. Published January 28, 1936. Class 6.
- 333,976. Dry Cleaning Powder. Drums, Inc., Detroit. Filed November 29, 1935. Serial No. 372,090. Published January 28, 1936. Class 4.
- 333,987. Waterless Cleaning Compound. Standard Oil Development Co., Linden, N. J. Filed December 10, 1935. Serial No. 372,491. Published January 28, 1936. Class 4.
- 333,991. Soap. Procter & Gamble Co., Cincinnati. Filed December 9, 1935. Serial No. 372,429. Published January 28, 1936. Class 4.
- 334,137. Insecticide. Cahn Manufacturing Co., Philadelphia. Filed November 26, 1935. Serial No. 372,007. Published February 4, 1936. Class 6.
- 334,172. Fungicides, Insecticides, and Disinfectants. Rose Manufacturing Co., Philadelphia. Filed December 4, 1935. Serial No. 372,256. Published February 4, 1936. Class 6.
- 334,191. Soaps, Toilet Soaps, Shaving Soap, and Shaving Creams. Forty-Second Street Sales Co., Chicago. Filed November 18, 1935. Serial No. 371,686. Published February 11, 1936. Class 4.
- 334,200. Insecticides. American Gypsum Co., Port Clinton, Ohio. Filed December 18, 1935. Serial No. 372,757. Published February 11, 1936. Class 6.
- 334,213. Cleansing Preparation. Harry R. Lewis & Co., Providence, R. I. Filed October 12, 1935. Serial No. 370,312. Published February 4, 1936. Class 4.
- 334,215. Furniture and Automobile Polish. Albert R. Morrison, Pueblo, Colo. Filed October 7, 1935. Serial No. 370,235. Published February 11, 1936. Class 16.
- 334,220. Liquid Shoe Cleaner. Farbudd Manufacturing Co., Long Island City, N. Y. Filed January 14, 1935. Serial No. 360,220. Published February 4, 1936. Class 4.

OIL VETIVERT.

The present high price of Bourbon Vetivert makes the Java oil an attractive purchase at this time.

JAVA

Oil Cedarleaf Oil Cedarwood

We have direct connections with leading producers of these oils.

Oil Lavender Spike

Write us for further information on the market for lavender, spike, vetivert, and other soap oils.

CHARLES FISCHBECK CO. INC.

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BICARBONATE OF SODA
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CAUSTIC SODA
CAUSTIC POTASH
DYES
DIBODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILICATE
OXALIC ACID
POTASSIUM CARBONATE
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SAL SODA
SILICATE OF SODA
SODA ASH
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Every raw material necessary for the manufacture of soap and allied products is carried in stock, and available at the right price for immediate delivery to your door.

Check over our list of raw materials and have us quote on your requirements.

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liquid . . flake . . solid

CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID-RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
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COCOANUT
OIL
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EASTERN INDUSTRIES, INC.

VEGETABLE OILS, ANIMAL OILS, FATS, CHEMICALS

125 Bergen Street.

Harrison, N. J.

OLIVE OIL
FOOTS
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OLIVE OIL

Raw Material Markets

(As of April 24, 1936)

NEW YORK—There were a number of new developments in the market for soap and disinfectant raw materials this period, with several important changes in prices being announced. In the list of chemical raw materials advances were noted in the price of naphthalene, cresylic acid and glycerin. The shortage of crude naphthalene continues to be acute and is responsible for the advance. The same situation applies to cresylic acid. On this material, demand has been so great that stocks both here and abroad are practically exhausted. In the case of glycerin, the war clouds abroad continue to restrict exports, and interfere with the normal interchange of glycerin stocks.

In the oil and fat list, a continuance of the declining tendency is noted. Although most of the more important oils held fairly stable this period after the steady decline of the last four or five months, the fringe of the oil and fat list continued to drop, with some materials which have not been changed over long periods finally being affected. Stearic acid and red oil were reduced in price by producers this period, the reason for the drop being given as the lessened cost of raw material.

In the perfuming materials group the trend continued downward this period, although there were scattered oils which were quoted above the levels of a month ago for one reason or another. Competition continued strong in the aromatic chemical list, with reports of lower prices on several more synthetic perfuming materials.

FATS AND OILS

Coconut Oil

The market for coconut oil was quiet this period, with prices fractionally lower. Offerings were light and there was little interest

shown by buyers who were inclined to hold down commitments pending further developments in competitive oils. New York tanks of Manila oil are now quoted at 4½c per lb.

Corn Oil

Much the same situation prevailed in the corn oil market. Here prices were unchanged at the 8 to 8½c level, and users were showing little interest in the market.

Palm Oil

The palm oil market held steady and unchanged. Offerings for shipment were light and actual transactions during the period under review were limited to comparatively small lots.

Stearic Acid

A drop of half a cent a pound was noted in stearic acid prices this period, with producers attributing the decline to lower raw material costs. Double pressed grade is now quoted at 9 to 10c per lb.

Tallow

Tallow prices were fractionally lower this period in a market that was practically nominal. The market was devoid of buying interest at offered prices even after the slight decline. City extra is quoted at 5½ to 55c per lb. Foreign tallow is still priced above the domestic product, which has been the case for some weeks.

PERFUMING MATERIALS

Aromatics

Competition continued severe in the aromatic chemical field with two new declines noted this period. Diphenyl oxide was dropped 15c per lb. by producers and phenylacetic acid 25c per lb.

Anise Oil

Quotations on anise moved up 2c per lb. this period to the basis of 61 to 63c. The move was caused by a lack of normal offerings from

the primary market, accompanied by an increase in demand.

Citronella Oil

Java citronella oil was raised a cent a pound in price this period and is now quoted at 31 to 32c per lb. Ceylon oil held unchanged at the 22 to 23c level.

Lavender Oil

Spanish spike lavender was reduced to a basis of 90c per lb. in drums this period in some quarters, with the can price 10c higher. The price level ranged upward from these figures according to brand and quality.

MISCELLANEOUS

Cresylic Acid

An advance of 3c per gallon was made in the price of imported cresylic acid earlier this period, the rise resulting from the scarcity in stocks. Domestic supplies are also believed to be small, and with the heavy demand from the synthetic resin field continuing, there is no indication when the tension can be expected to ease in this market.

Glycerin

Glycerin prices were advanced all along the line this period just when in normal times the reverse would be expected from this market due to the decline in anti-freeze demand. Restrictions abroad are interfering with the flow of glycerin to this country, and apparently domestic stocks are not enough to take care of demand.

Naphthalene

With shortages both here and abroad in stocks of crude naphthalene the market for the refined grade was moved upward another half cent a pound this period. Reports indicate that no shipments were received from Germany during the month of February which gives a partial explanation of the domestic shortage. Coming right at the time when there is a seasonal expansion in demand it is all the more acute.

UNIFORMLY DEPENDABLE

Always Available



CAUSTIC POTASH

88-92%—Imported and Domestic. Flake—Solid—Granular—Broken—Walnut—Liquid. Various packages.

CARBONATE OF POTASH

Imported and Domestic. Calcined 96-98%—Calcined Dustless 98-100%. Hydrated 83-85% — Liquid 47-48%.

CAUSTIC SODA

Prime 76%. Our own product. Flake—Crystal—Solid. Various packages.

ISCO SILVER TALC

From America's purest deposit. Noted for its uniform whiteness and excellence.

CHLORIDE OF LIME

(Bleaching powder) 35-37%.

STEARIC ACID

Triple pressed. Low Iodine number.

BORAX

Powdered—Crystals—Granulated.

LANOLIN—WAXES—ZINC OXIDE — OLEIC ACID — AQUAPHIL

For Effective Insect Control LARVACIDE (Chloropicrin)

Destroys pests, including larvae and eggs • Unequalled power of penetration • Safer, because no one unprotected, can enter or stay in dangerous concentrations • Drives rodents out, so they won't die between walls or floors • Write for our new FUMIGATION Bulletin.

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FLAKE	SOLID	LIQUID
88/92%	88/92%	45%

CAUSTIC SODA

FLAKE	SOLID	LIQUID
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LIQUID SOAPS AND
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Turner Caustic Potash and Caustic Soda may be given any test you choose. Produced under a rigid system of control, they are doubly checked in the process of manufacture.

Turner chemicals are uniform and of the highest standard . . . backed by years of thorough and dependable service . . . yet priced to meet competition.

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83 EXCHANGE PL., PROVIDENCE, R. I.

*Suppliers of Chemicals
for over 70 years*

"Sapolio" Export Mgr. Sails

R. H. Hobbs, export manager of Enoch Morgan's Sons Co., sailed recently from New York for an extended trip through South America. He planned to visit branch offices and distributors in Argentina, Peru, Chile and Brazil.

Coleman Now Publisher

S. W. Coleman, formerly general manager of the George E. Marsh Co., Cambridge, Mass., is now engaged in the publishing and printing business in New York. He is representative of several industrial publications and a large New England printing plant.

T. E. Waters Recovering

Thomas E. Waters, manager of the sale of industrial soaps for Procter & Gamble Co., is recovering from the effects of a serious illness at his home in Cincinnati. He has been ill since the latter part of March.

Colgate Names Credit Mgr.

E. N. Felio has been appointed to the newly established office of general credit and collection manager by Colgate-Palmolive-Peet Co.

Offers New American Pumice

Barnsdall Tripoli Corp., Seneca, Mo., has started production on a new American pumice which is said to be equal in every respect to Italian pumice. An experimental washing and sizing plant has been built at the deposit near Grants, N. M., and is now in operation. An experimental grinding and sizing plant has also been built at Seneca, Missouri. The material will be marketed under the trade name "Valencia Pumice."

Maryland Taxes Soaps

In a last minute reversal of its previous stand the Maryland Legislature adopted a 10 per cent tax on toilet soaps at a night session, April 2nd, the tax to continue in effect through March 31, 1937. Also included in the same tax measure are such products as tooth paste, mouth

washes, hair preparations, powders, cosmetics, creams, etc. Representatives of the soap industry fought vigorously against including soaps in a tax bill obviously intended to apply to cosmetics, but were thwarted by the last minute surprise move of the Legislature in their attempt to hold off this objectionable tax measure.

Ungerer Sales Representative

Norman E. Gallagher has been appointed sales representative for Ungerer & Co., in the middle Atlan-



tic territory, with headquarters in Philadelphia in the Bourse Building. Mr. Gallagher will handle the full Ungerer line and will call on users in Pennsylvania, South Jersey, Delaware, Maryland, District of Columbia, Virginia, West Virginia and North and South Carolina. He has had twelve years' sale experience in the aromatic industry and is thoroughly familiar with this territory.

Fritzsche Shows Movies

Movies and a lecture by Dr. Ernest Guenther on essential oil production in Italy, Spain, Austria, Holland, France, and the United States were given under the auspices of Fritzsche Brothers, Inc., New York, on April 22 at the New York Athletic Club. The movies were those taken by Dr. Guenther in all parts of the world in natural colors and were accompanied by a discussion of many interesting phases of the production of essential oils and floral essences. Following the lecture, refreshments were served at a social gathering attended by many members of the perfume, toilet goods, and soap industries.

Toilet Goods Ass'n to Meet

The first annual convention of the Toilet Goods Association will be held May 26, 27 and 28 at the Hotel Biltmore, New York. Arrangements for the affair are in charge of Charles E. Kelly, Hagerty Bros., New York, who is serving this year as chairman of the entertainment committee. The entertainment program includes a theatre party and supper dance the evening of May 26th, a golf tournament on the afternoon of the 27th at the Winged Foot Golf Club, and the annual banquet and dance at the Biltmore the evening of the 28th. The committee advises that the show selected for the theatre party is "On Your Toes," a new musical. Reservations, they say, will be filled in the order in which applications are received. A complete book of tickets including all the above events as well as three luncheons will be sold for twenty-five dollars. Checks should be made payable to Walter P. Murray, treasurer, care Continental Can Co., 100 East 42nd St., New York.

Sky High Prods. Moves

Sky High Products, Inc., soap manufacturers, Chicago, moved recently to 1338 Fullerton Ave.

New "Savontex" Wash Cloth

A wash cloth impregnated with soap which lathers when wet is being marketed by Styger Products, Sussex, N. J., under the name "Savontex".

Adds Magnesia Mouthwash

Allen B. Wrisley Co., Chicago, recently added to its line of toilet preparations "Lactoral" milk of magnesia mouth wash.

Urge Palmkernel Tax Repeal

A bill which would remove the processing and import taxes from palmkernel oil crushed in the United States and denatured to make it unfit for edible purposes has been introduced in the U. S. House of Representatives by Representative Glenn Griswold of Indiana (H. R. 12055).

KRANICH SOAPS

LIQUID SHAMPOO BASE
Coco Oil 60%
Olive Oil 60%
Natural, Opal, Green

LIQUID SOAPS
Coconut 10%-15%
20%-40% Concentrate
Colored and Perfumed

SCRUBBING SOAPS
Pine-Sassafras
Plain

LIQUID SHAMPOOS
Coconut Oil 30%-45%
Olive Oil 30%
Castile 30%

POWDERED SOAPS
Castile U.S.P.
Coco Castile 50-50
Pure Coconut
Pure Palm

POTASH SOAPS
Soft and Hard
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HARD AUTO SOAPS

**KRANICH
SOAP CO., Inc.**

54-60 RICHARDS ST., BROOKLYN, N.Y.



Kranich Standard Soaps are manufactured and produced entirely in our own factory. All our oils and fats are processed and purified before use. All alkalies are dissolved and settled to remove impurities. All our processes are technically supervised and a chemical analysis made on all finished products to assure satisfaction to our trade.



STOP WORRYING

about the unsteady supply
and fluctuating prices of
Carnauba Wax

A new wax has been developed which will enable you to make the finest quality polishes (Shoe-Floor-Auto-Furniture) without the use of Carnauba. This new wax which is called ALBACER is hard, white and has a high melting point (95°-97°C.)

Besides replacing Carnauba, the use of Albacer in polishes (paste or emulsion form) will result in many important advantages.

→ **INEXPENSIVE**—The finest quality polishes can be made with Albacer at a lower cost. And price fluctuations and irregular supply are no longer a problem.

→ **EXCEPTIONAL LUSTRE—HARD—DURABLE.**
Polishes made with Albacer are outstanding for their beautiful lustre. They are hard, durable, and resistant to water.

→ **ALLOWS FOR HIGH PERCENTAGE OF PARAFFIN**
—See formula below. About 1/3 paraffin can be incorporated without affecting in any way the lustre and beauty of the polish.

If you want proof—

TRY THIS FORMULA

Here's a suggested formula for making a Floor Polish (rubbing type) with Albacer. It will give a high lustre, is easily applied, requires a minimum of polishing and is non-slippery.

ALBACER	15 1/4 LB.	NAPHTHA	25 1/2 LB.
PARAFFIN WAX	20 LB.	TETRALIN	1 LB.
CANDELLILA	1 1/4 LB.	HEXALIN	3 LB.

Melt waxes, add solvents, stir thoroughly and pour at as low a temperature as possible.

PRICES OF ALBACER

450 lb. drums	50 lb. cans	8 lb. cans	2 lb. cans
34¢ lb.	39¢ lb.	44¢ lb.	59¢ lb.

WE WILL SEND YOU A FREE SAMPLE
(1 OZ.) IF YOU WILL WRITE OR WIRE

GLYCO PRODUCTS COMPANY
INC.
148 LAFAYETTE ST. (Dept. 22) NEW YORK



Raw Material Prices

(As of April 24, 1936)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	\$.11	\$.12½
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, drums	gal.	.58	.60
Low boiling grade	gal.	.68	.70
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls.	gal.	4.13	4.25
Complete Denat., SD I, drums, ex. gal.	gal.	.33	.43
Alum. Potash lump	lb.	.03¼	.03½
Ammonia Water, 26°, drums, wks.	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls.	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	2.25	2.60
Borax, pd., cryst., bbls., kegs.	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.07	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.11	.11½
Creosote Oil	gal.	.11½	.12½
Feldspar	ton	14.00	15.00
(200 to 325 mesh)			
Formaldehyde, bbls.	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.14½	.15
Dynamite, drums	lb.	.14½	.15
Saponification, drums	lb.	.11½	.12½
Soap lye, drums	lb.	.10¼	.10¾
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.07¼	.07½
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorobenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls.	gal.	.59	.64
Potash, Caustic, drums	lb.	.06½	.06¾
Flake	lb.	.07	.07½
Potassium Carbonate, solid	lb.	.07½	.09½
Liquid	lb.	.08½	.08¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	4.50	5.70
Grade K to N.	bbl.	5.72	5.75
Grade WG and X.	bbl.	5.85	6.00
Wood	bbl.	4.25	5.30
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04%	.04%
Olive Castile, bars	lb.	.13	.19
powder	lb.	.23	.30
Olive Oil Foot	lb.	.07	.07½
Powdered White, U. S. P.	lb.	.19	.21
Green, U. S. P.	lb.	.06½	.08
Tallow Chips	lb.	.07½	.07¾
Whale Oil, bbls.	lb.	.05	.06
Soda Ash, cont., wks., bags, bbls. 100 lb.	lb.	1.23	1.50

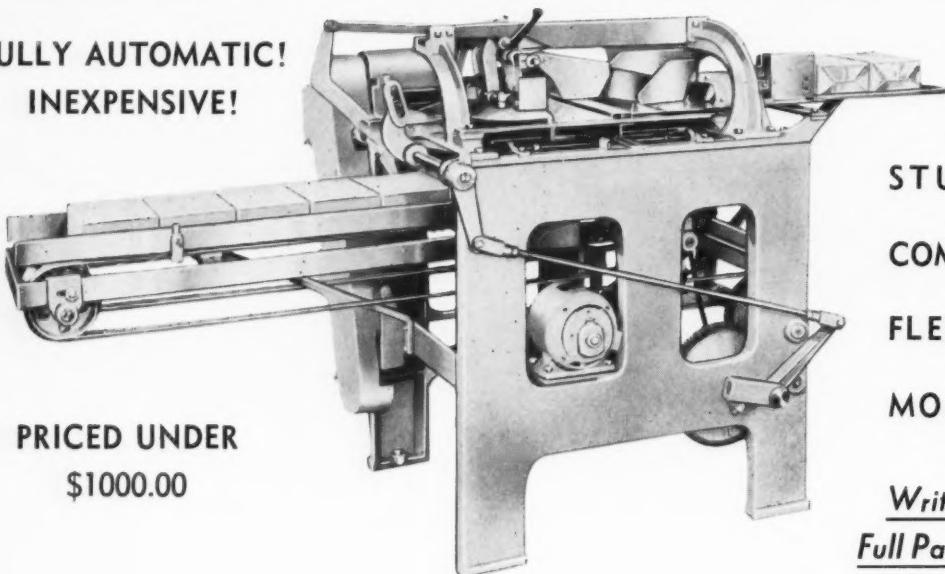
Car lots, in bulk	100 lb.	—	\$1.05
Soda Caustic, cont., wks., std.	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal, bbls.	100 lb.	1.10	1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls.	lb.	.07½	.08¾
Sodium Hydrosulphite, bbls.	lb.	.19	.20
Sodium Silicate, 40 deg., drum	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Trisodium Phosphate, bags, bbls.	lb.	.03	.03¾
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls.	lb.	.20	.22

Oils—Fats—Greases

Castor, No. 1, bbls.	lb.	.10¾	.11½
No. 3, bbls.	lb.	.10¾	.11
Coconut			
Manila, tanks, N. Y.	lb.	—	.04½
Tanks, Pacific coast	lb.	.04½	.04½
Cod, Newfoundland, bbls.	gal.	.40	Nom.
Copa, bulk, coast	lb.	.0255	.0260
Corn, tanks, mills	lb.	.08½	.08½
Cottonseed, crude, tanks, mill	lb.	—	.08½
PSY	lb.	—	Nom.
Degras, Amer., bbls.	lb.	.05¼	.06
English, bbls.	lb.	.08¾	.10
Neutral, bbls.	lb.	.08	.11
Greases, choice white bbls., N. Y.	lb.	.05	.07
Yellow	lb.	.04¾	.04¾
House	lb.	.04¾	.04¾
Lard, City	lb.	.11½	.11¾
Compound tierces	lb.	.11¾	.12
Lard Oil			
Extra, bbls.	lb.	—	.10½
Extra, No. 1, bbls.	lb.	—	.08½
No. 2, bbls.	lb.	—	.08
Linseed, raw, bbls., spot	lb.	.0980	.1020
Tanks, raw	lb.	—	.0920
Boiled, 5 bbls. lots	lb.	—	.1060
Menhaden, Crude, tanks, Balt.	gal.	.34	Nom.
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.11
No. 2, bbls., N. Y.	lb.	—	.10½
Olive, denatured, bbls., N. Y.	gal.	.72	.73
Foots, bbls., N. Y.	lb.	.08	.08½
Palm	lb.	.04½	.04¾
Palm Kernel, casks, denatured	lb.	.04¾	Nom.
Peanut, domestic tanks	lb.	.08½	Nom.
Red Oil, distilled bbls.	lb.	.09¾	.10½
Saponified bbls.	lb.	.09¾	.10½
Tanks	lb.	—	.08½
Soya Bean, domestic tanks, N. Y.	lb.	—	.07½
Stearic Acid,			
Double pressed	lb.	.09	.10
Triple pressed, bgs.	lb.	.11¾	.12¾
Stearine, oleo bbls.	lb.	.07¾	.08
Tallow, special, f.o.b. plant	lb.	.05¾	.05½
City, ex. loose, f.o.b. plant	lb.	.05½	.05¾
Tallow, oils, acidless, tanks, N. Y.	lb.	—	.07¾
Bbls., c/l N. Y.	lb.	—	.08½
Whale, refined	lb.	.07¾	.08

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Cayenne	lb.	2.30	2.50
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White, drums	lb.	—	.17
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Cedar Wood, light, drums	lb.	.18	.22
Citronella, Java, drums	lb.	.31	.32
Citronella, Ceylon, drums	lb.	.22	.23
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Geranium, African, cans	lb.	5.25	6.75
Bourbon, tins	lb.	5.50	7.00
Hemlock, tins	lb.	.70	.80
Lavender, U. S. P., tins	lb.	3.25	7.00
Spike, Spanish, cans	lb.	1.00	1.50
Lemon, Ital., U. S. P.	lb.	1.00	1.50
Lemongrass, native, cans	lb.	.50	.55
Linaloe, Mex., cases	lb.	1.25	1.30
Nutmeg, U. S. P., tins	lb.	1.20	1.35
Orange, Sweet W. Ind., tins	lb.	1.95	2.00
Italian cop	lb.	1.90	2.75
Distilled	lb.	—	.75
Origanum, cans, tech.	lb.	.70	.75
Patchouli	lb.	5.25	6.00
Pennyroyal, dom.	lb.	1.65	1.90
Imported	lb.	1.30	1.40
Peppermint, nat., cases	lb.	1.90	2.30
Redis., U. S. P., cans	lb.	2.15	2.55
Petit, grain, S. A., tins	lb.	1.00	1.15
Pine Needle, Siberian	lb.	.90	.95
Rose, Natural	oz.	5.25	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.34	.45
Tech., lb. tins	lb.	.30	.40
Sandalwood, E. Ind., U. S. P.	lb.	5.00	5.50
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	.46	.47
Spearmint, U. S. P.	lb.	1.40	1.50
Thyme, red, U. S. P.	lb.	.58	1.02
White, U. S. P.	lb.	.65	1.10
Vetivert, Bourbon	lb.	10.50	11.00
Ylang Ylang, Bourbon	lb.	4.60	7.00

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Amyl Cinnamic Aldehyde	lb.	1.75	2.50
Anethol	lb.	1.00	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.20	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.00	2.30
Citronellal	lb.	2.05	2.50
Citronellol	lb.	2.00	2.15
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	—	.70	1.00
Eucalyptol, U. S. P.	lb.	.50	.55
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	.90	2.00
Imported	lb.	2.00	3.00
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Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.25	5.50
Iso-Eugenol	lb.	3.00	4.25
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Terpineol, C. P., 1,000 lb. drs.	lb.	.23	.25
Cans	lb.	.27	.30
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	3.75	4.00
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect powder, bbls.	lb.	.17	.18
Concentrated Extract	gal.		
5 to 1	gal.	1.25	1.30
20 to 1	gal.	4.25	4.50
30 to 1	gal.	6.25	6.45
Derris, powder—4%	lb.	.40	.42
Derris, powder—5%	lb.	.24	.48
Cube, powder—4%	lb.	.34	.37
Cube, powder—5%	lb.	.40	.42

Gums

Arabic, Amb. Sts.	lb.	.09 1/2	.10
White, powdered	lb.	.13	.14
Karaya, powdered No. 1	lb.	.09 1/2	.10
Tragacanth, Aleppo, No. 1	lb.	1.25	1.30
Sorts	lb.	—	.25

Waxes

Bees, white	lb.	.36	.38
African, bgs.	lb.	.25	.26
Refined, yel.	lb.	.28	.30
Candelilla, bgs.	lb.	.16	.17
Carnauba, No. 1	lb.	.45	.46
No. 2, yel.	lb.	.44	.45
No. 3, chalky	lb.	.35	.36
Ceresin yellow	lb.	.36	.38
Paraffin, ref. 125-130	lb.	.04 1/4	.04 1/4

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DRY CLEANING SOAPS

(From Page 33)

The danger in having much alcohol present is its tendency to cause dyes to run, especially on silk.

A commercial dry-cleaners' soap of the paste type illustrative of a not too complicated formula, has the following approximate composition: 25 per cent calcium soap, 20 per cent potash soap, 2 per cent aqua ammonia (26° Be.), 15 per cent oleic acid, 8 per cent water, and 30 per cent petroleum naphtha. The ammonia is present, of course, as loosely combined ammonia soap. An unusual amount of calcium soap is used here, which can hardly be taken as typical. This particular ingredient probably represents an exception rather than the rule.

AS TO the dry-cleaner himself, he has certain conditions which he would like to see met in an ideal soap. These are briefly, that the soap should be "soluble" in naphtha. It should have superior detergent properties, that is, it should be able to carry dirt particles in suspension so that they can be easily removed from the goods. It should act as a blending agent for the water contained in the garments, and the dry-cleaning solvent. It should be non-foaming. (Foaming may be caused by the presence of excess water.) It should be quick cleaning. It should not interfere with rapid filtration.

A comparative study was made at the National Association Institute of Dyeing and Cleaning of 46 commercial dry-cleaning soaps. Each soap was given a rating as to its efficiency in removing insoluble soil from garments, when added to various volumes of dry-cleaning solvent. The soaps were divided into three classes; pastes, soluble or liquid soaps, and detergent soaps which are liquids containing chlorinated solvents. Of the 46, ten products were given excellent ratings and all of these were pastes. The efficiency of the detergent soaps was rated low, and that of the soluble soaps in between the detergent soaps and soap pastes. This difference was apparent at a concentration of one pound of soap to 50 gallons of solvent, but the efficiency of the paste soap was very markedly increased over that of the others at a concentration of one pound of soap to 5 gallons of solvent. Since filtration did not enter into the picture, the results cannot be reduced to wholly practical terms.

In conclusion, it might be pointed out that the successful manufacture of dry-cleaning soaps is quite evidently a procedure based on long experience. Because of the difficulties encountered in their use, dry-cleaning soaps are tricky things to manufacture as many a soap man has discovered to his sorrow. Careful chemical control in manufacture too often seems to go for naught when it comes to practical use of the soaps in the dry-cleaning plant. The uncertain nature of their detergent action and the wide variation in the character of soil encountered and fabrics to be cleaned multiply the prob-

lems of the dry-cleaning soap manufacturer. The manufacture of these soaps is perhaps the most difficult and uncertain of any commercial soap products in common use today.

TEXTILE DETERGENTS

(From Page 27)

Lauryl and oleyl sulfates are valuable assistants in the preliminary treatment of the cotton for removing natural and manufacturing impurities. These substances may also be used with bleaching agents, and are effective in producing clear white materials with a soft handle, even when used in small quantities.

As far as the part played by soaps in the field of artificial fabrics is concerned, it is important for the soaps to be not very alkaline, even though they are used in small quantities. In addition to the neutrality requirement, certain criteria in the way of composition have to be met. Thus, taking acetate silk as a case in point, a neutral olive oil soap is used for cleansing, whereas a tallow soap is wholly undesirable.

In order to obtain the best quality in rayon goods, the less the material is treated, the better it is. The alcohol sulfates are very valuable in this connection, inasmuch as no great care is required to wash them out completely when they are used for scouring purposes, since they do no harm when they are left in the material, and, in certain cases, such as in promoting the dispersion of particular types of dyes, do considerable good. Sodium stearyl sulfate, used together with a small quantity of alkali, is beneficial in its effect on hosey and rayon knit goods.

Sardine oil having an iodine number of 175.7, saponification number 105.7 and acid number 0.49 was hydrogenated to various iodine numbers at 220° C., with a nickel catalyst. The fatty acids were separated and analyzed for the formation of bromides insoluble in ether and petroleum ether, and the bromide contents determined. Ether-insoluble bromides decrease steadily with decreasing iodine numbers and are almost absent at an iodine number of 111. As hydrogenation progresses the highly unsaturated fatty acids are hydrogenated faster, being converted into lower unsaturated acids and then into unsaturated acids of the oleic series, or saturated acids. Until the disappearance of the highly unsaturated acids is almost complete, the lower unsaturated acids, giving the petroleum ether-insoluble bromides, remain almost unchanged. When these acids are converted to the unsaturated acids of the oleic series, hardly any saturated acids are formed. The fact that neutralization values of the solid acids are markedly higher than those of the liquid acids show that hydrogenation occurs selectively in regard to the unsaturated acids of higher molecular weight. M. Takano and Y. Kumeno. *J. Soc. Chem. Ind., Japan* 38, Suppl. binding 252-4 (1935).

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If you want your recovered glycerine and salt free from harmful metallic contamination, you'll make sure that it is free. It's a matter of how much purity you want.

The prominent soap maker whose evaporator and salt boxes are shown here, does want his glycerine and salt pure. So he insures their coming out that way. He has the evaporator made of Pure Nickel and Nickel-Clad Steel, and the salt boxes of Nickel-Clad Steel.

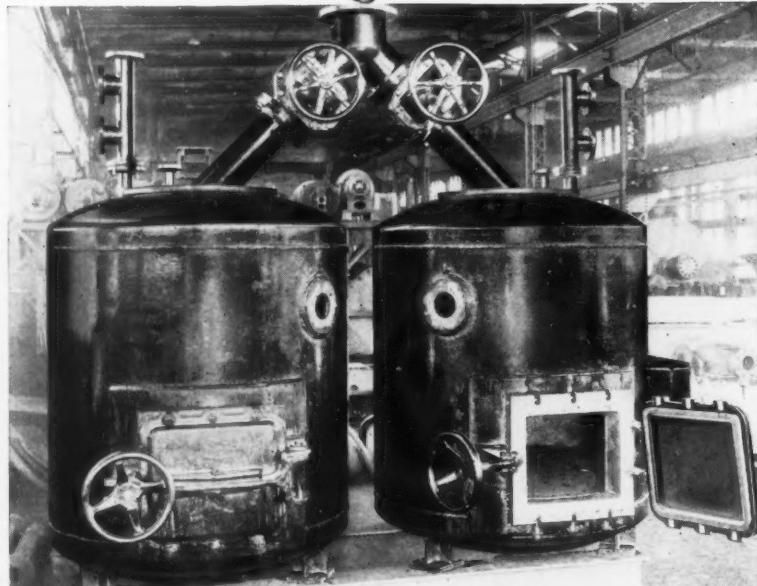
His glycerine product was to be as pure as possible and his recovered salt clean and pure. If the salt becomes contaminated and goes back into the soap—what's the good of all the care and money spent to buy iron-free ingredients?

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Nickel and Nickel-Clad Steel furnish the answer. Nickel has proven itself time and again in alkali plants where it is used to produce pure caustic soda—in every cannery where metal handles salt and brine—in many distillation units where it is used. That's why the smart soap maker uses Nickel.

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THE INTERNATIONAL NICKEL COMPANY, INC.
67 WALL STREET, NEW YORK, N. Y.

PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Shampoo Mixtures

SHAMPOO products containing alkalies have considerable importance. A powdered soap stock may be mixed with the materials to be added, in a mixing machine, or soap may be specially prepared. A suitable fat mixture is as follows:

- 50 per cent coconut oil
- 25 per cent tallow
- 15 per cent lard
- 10 per cent olive oil

The fats are melted together in a double-walled steam kettle and then saponified by the half-boiled process. After complete saponification let stand for some time before testing. Any corrections to be made should be carried out with the soap warmed up. When properly adjusted, it should be transferred to the smallest forms possible for quick setting. Remove from the forms, cut and dry. The soap should then be well cooled and ground. Perfume is added to the other materials in the mixing machine, and the two parts are finally mixed thoroughly.

Many times bleaching agents are added to these soap-containing powders. They prevent blond hair from darkening and bleach dark hair. From 3 to 5 per cent of sodium perborate is commonly used for this purpose. After the hair is washed it may be after-treated with "gloss" powder, which is a powdered organic acid or a mixture of acids, such as citric, acetic or boric.

For the shampoo mixtures,

suitable formulas are as follows:

1. 75 parts by weight soap powder
5 parts by weight sodium bicarbonate
20 parts by weight borax
2. 50 parts by weight soap powder
10 parts by weight soda ash
25 parts by weight borax
15 parts by weight ammonium carbonate

Other products used for shampooing are alkaline mixtures containing no soap. Opinions vary as to whether these are as good as soap mixtures. Probably the answer is that no one of them would suit everyone. These mixtures give a foam which disappears very quickly, leaving no appreciable residue. When soda is present the amount should be limited to not over 30 per cent, as more would tend to make the hair brittle and also give it a reddish tint.

1. 250 parts by weight sodium bicarbonate
25 parts by weight ammonium carbonate
30 parts by weight borax
2. 75 parts by weight borax
75 parts by weight sodium bicarbonate
50 parts by weight soda
5 parts by weight saponin

These products may also be offered in the liquid condition. The ingredients are the same as above, dissolved in:

200 parts by volume of water
100 parts by volume of alcohol, 70%
30 parts by volume of ammonia-water, sp. gr. 0.91

(Note—the original parts by weight are in grams and parts by volume in cc., which are related to each other in that 1 cc. of water weighs 1 gram.)

Suitable perfumes for the

above compositions are as follows:

Rose:—
60% geraniol
25% rose oil, synthetic
15% sandalwood oil, East Indian

Violet:—
50% bergamot oil
45% cananga oil
5% ionone

Heliotrope:—
90% heliotropin
10% vanillin

Lavender:—
60% lavender oil
20% bergamot oil
15% lemon oil
5% clove oil

Seifensieder-Ztg. 63, 197-8 (1936). •

Mold Fungi on Fatty Acids

Twenty-four to forty-eight hour growth tests with cultures of *A. niger* and *P. glaucum* on nutrient media containing lauric acid, at various pH values indicate that in the acid range, the formation of methyl ketones ("perfume rancidity") and visible growth of the molds both cease at about the same degree of acidity. On the alkaline side, ketone formation persists at a degree of alkalinity higher than that which inhibits visible growth. Growth of the molds with consumption of the fatty acids can proceed without ketone formation on media containing fatty acids with longer carbon chains than C₁₆, namely stearic, palmitic and oleic acids, but with the sodium soap of undecenoic acid in sufficient dilution ketones appear. K. Taufel, H. Thaler, and M. Loweneck. *Fettchem. Umschau* 43, 1-4 (1936).



A winner in the New York State accident-prevention campaign sponsored by the National Safety Council. A bronze plaque was awarded to the Port Ivory, Staten Island, New York plant of Procter & Gamble for a 100 per cent no-accident record. Recent air photograph of the plant at Port Ivory.

Metaphosphate Polymerization

The wide use of hexametaphosphate has led to a study of its polymerization phenomena. Ordinary sodium hexametaphosphate which forms a complex with calcium salts, may be represented by the formula $[Na_4(PO_3)_6]Na_2$. Isomeric with this are two other forms, $[Na_2(PO_3)_6]$ Na_4 and $[Na(PO_3)_6]Na_5$. The sodium outside of the complex is readily ionisable. George Buchner. *Fettchem. Umschau* 43, 10 (1936).

Book Covers Patent Law

A new book giving advice to business men on how to protect their intangible mental equities under the U. S. laws covering patents, trade marks, copyrights, etc., has just been issued by Harper & Bros., New York, under the title "How to Protect Business Ideas." The author is William H. Leahy, general counsel of Denni-

son Mfg. Co. The publication price is \$2.50.

Carbon Efficient Bleach

A comparison of the ability of adsorbent agents to decolorize oil was made with fuller's earth NV, activated earth Montana Z and activated carbon black in the form of *Nuchar*. In the tests, 75 cc. of the stock oil sample were shaken at room temperature for 10 minutes with 2 per cent of each of the three decolorizing agents. They were allowed to stand for a half hour and then shaken again for 10 minutes. After allowing 18 hours for the samples to become clear, comparisons of color were made in a colorimeter, with results as follows:

Decolorizing Agent	Per Cent Decolorization
Fuller's earth NV.....	40.7
Montana Z	44.2
Active carbon black No. 2..	90.0

The effect of the activated earth was not much greater than that of the

natural earth, while the activated carbon proved to be much more efficient. E. Erdheim. *Les Matières Grasses* 28, 10765 (1936).

Mechanics' Hand Soap

Mechanics' soap consists of a soap base, usually soft potash soap, whose consistency is modified by mechanical mixing and working in of mineral abrasive or fine sawdust and sometimes oil- and fat-soluble solvents. The consistency of the paste can be controlled by the proportions of the various ingredients used. A suggested composition is as follows: 6 parts of coconut oil or palm kernel oil fatty acids, 6 parts of soybean oil or other plant oil fatty acids, 3 parts of castor oil fatty acids, 6 parts of pine oil, 6 parts of denatured alcohol, 1 part of anhydrous lanolin, 6 parts of caustic potash, 50° Be. and 6 parts of water. The soap jelly is worked up with a mixture of $\frac{1}{2}$ part of ground pumice and $\frac{1}{2}$ part of fine

sawdust to a pasty consistency and perfumed with spike oil or terpineol. The perfume can be omitted if desired as the pine oil will impart a not unpleasant odor to the product. *Seifensieder-Ztg.* 63, 212 (1936).

Shaving Cream Protector

A shaving product is characterized by the presence of a material to protect the razor blade against rusting, such as chromic acid, chromate, bichromate, perchromate, peroxide, perchlorate, perborate or permanganate. Such a material may be added to the shaving soap or shaving cream containing soap, but preferably to a brushless cream which evolves no foam. An example is the addition of 1 gram of sodium chromate to 453 grams of shaving cream. Ralph H. Fash. French Patent No. 788,572. (Ed. Note: Apparently a coating of magnetic iron oxide, Fe_3O_4 is formed by these agents, preventing the formation of red iron oxide, Fe_2O_3 , and rust.)

Pyrophosphate Detergents

Detergents are made by mixing water-soluble pyrophosphates with waterglass or other non-oxidizing, alkaline, water-soluble inorganic alkali-metal salts other than carbonates. Abrasives may be added. Henkel & Cie. G.m.b.H. British Patent No. 436,213.

Removing Albumins

Albumins and mucilage are separated from oil by passing it through a heating coil in the upper part of a vessel and a cooling coil in the lower part of the same vessel. A. L. Tepeev. Russian Patent No. 34,267.

SOAP MILLING

Soap milling troubles,—there are plenty of them,—what they are, what causes them, and how they can be avoided,—will be discussed in the June issue of SOAP by C. R. Kemp, whose views are backed by twenty years making milled toilet soaps.

British Soap Mill Practice

THE greatest advance so far made in the milling process has been the substitution of internally cooled metal roller mills for the old granite mills. Many British soapmakers consider that the best practice is to have 2 four-roll mills, or 3 three-roll mills working in series, the capacity being some 5-6 hundredweights of soap per hour. (A hundredweight is 112 pounds.) On the other hand, mills with a larger number of rolls, for instance 8 to 12, give completely milled soap in one operation and there is a considerable reduction in the space occupied and the power consumed. One British-made ten-roll mill, fitted with 10 high speed, water-cooled steel rolls, and so arranged that the strips of soap cross over one another immediately after leaving the scraper knife, is claimed to give a mixing effect equal to 16 large granite rolls. It occupies only 25 per cent of the space and consumes 30-40 per cent of the power required for the older method.

There are many different types of these mills, each maker claiming special features. Another way in which floor space may be saved and power economized is by the use of "two- or three-way" mills, which take the place of 2 or 3 mills in tandem. In these the hopper is divided and special guides are fitted so that the soap may be passed automatically through the mill two or three times. The ribbon from these newer metal-roller mills varies in thickness from 0.03 to 0.07 mm., and the soap obtained is in good condition for compression. One of the new mills has a crimping device which produces closely crimped ribbon which is claimed to give better results in the plodder.

The latest efforts appear to be attempts to eliminate the milling operation altogether. One way of doing this is to obtain powdered soap and compress this into cakes under a very high pressure. This method has been successfully used in Europe and

no doubt developed from the spray-drying of soap. Another method which replaces the milling process is one which forces partially dried soap chips at about 100° F. through wire screens of 20, 30 and 40 mesh, by means of high pressure. In this way the soap is worked thoroughly and the shearing action which takes place in plastic flow is very effective in producing a soap having the desired physical properties. *Perfumery & Essential Oil Record* 27, 146-7 (1936).

Sulfated Shave Cream

A shaving cream which is suitable for softening the beard for shaving, and which is incapable of forming lime soap under the conditions of use, consists of water, stearic acid, and a soluble salt of a sulfonated or sulfated organic carboxyl-free compound. The latter has an aliphatic radical containing from 10 to 18 carbon atoms per molecule. It possesses sudsing and emulsifying properties. Procter & Gamble Company of Canada, Ltd. Canadian Patent No. 356,798.

Sulfonated Oil Cleanser

A sulfonated oil suitable as a cleansing or emulsifying agent in the dye or leather industry is made from sperm or bottle-nose oil. The oil is subjected to methanolysis or ethanolysis to produce a mixture of methyl or ethyl esters of fatty acids and free higher alcohols. This product is sulfonated with sulfuric acid or chlorosulfonic acid. Kwao Sekken K. K. Nagase Shokai. Japanese Patent No. 111,447.

Soap-Sulfonate Mixtures

Mixed detergents consists of soap and sulfonated lauryl and oleyl alcohols or salts or esters thereof in such proportions that the soap is more than 25 per cent of the whole. Denis Lacy-Hulbert. British Patent No. 436,866.

Determining Wetting Power

A PRACTICAL method for the determination of wetting power is that of putting a piece of fabric on the surface of the solution being studied, and measuring the time it takes for the cloth to become thoroughly wet and sink into the liquid. Several precautions are necessary in applying the method for it to be of any value. For example, wetting power will vary with temperature, so that this must be kept constant. The values will differ for cotton, wool and silk, as well as for different weaves of the same kind of material. The condition of the cloth is also a factor,—whether it has been laundered several times or whether it is new. The samples used for the test must therefore be standardized as to kind, size and shape. Results will also vary with the nature of the solution, for example whether it is plain water or a mercerizing liquor. Keeping all of these variables constant, relative values can be obtained for different wetting agents.

In the method as applied, round pieces of cotton material 26 mm. (about 1 inch) in diameter, were used with varying concentrations of a single wetting agent in aqueous solution at a temperature of 20-23°C. The sinking time, measured with a stopwatch, increased with decrease in concentration of the wetting agent. The more reproducible results were obtained with a wetting time of 2 seconds. Longer periods varied greatly among individual tests.

The method recommended is to make varying concentrations of the wetting agent being studied and determine which concentration will give a wetting period of 2 seconds. Ten tests should be made at each concentration and the average taken. It may be necessary to make an intermediate set of concentrations in order to get the desired value. If two wetting agents were compared in this way, and one found to give the 2-second period at a concentration of 7.8 per cent, and the other at a concentration of 3.4 per cent, the second would

be considered twice as efficient in wetting ability as the first.

Results may be expressed in terms of "wetting number." This is defined as that concentration of wetting agent in a definite liquid at a fixed temperature, which is just sufficient to cause complete wetting and sinking of a standard piece of textile material in a period of 2 seconds. Josef Hetzer. *Fettchem. Umschau* 43, 4-8 (1936).

Bromine Absorption of Oils

A new apparatus has been designed for use in the bromine-vapor method for the determination of the halogen absorption of oils. This apparatus is made entirely of glass and can be used for two determinations simultaneously. It consists essentially of a cylinder closed at one end with a ground-glass stopper, and at the other end, which is drawn out to a capillary, with a glass rod held in place by pressure-tubing. Inside the cylinder is a glass cradle, made to carry two microscope slides, and a porcelain boat to hold the bromine. The determination is made as described previously, *Analyst* 53, 69 (1928), except that at the end of the absorption the capillary is attached to a water-pump, the stopper removed, and the excess drawn away. The slides may then be removed and "dried" at a suitable temperature, or the whole apparatus, still attached to the pump, may be placed on a warm plate and heated in a current of warm air until all free bromine has disappeared. H. Toms. *Analyst* 61, 177-8 (1936).

Wetting Ratios

The wetting and spreading properties of aqueous solutions of mixtures of oleic acid with potassium hydroxide, potassium carbonate and ammonia were studied at a temperature of 25°C., using one gram of oleic acid per 100 cc. Under these conditions wetting and spreading properties were at a maximum with

a ratio of potassium hydroxide to oleic acid of 0.9 mole; with a ratio of potassium carbonate to oleic acid of 1.1 moles; and with a ratio of ammonia to oleic acid of 2 moles. H. L. Cupples, *Ind. Eng. Chem.* 28, 434-6 (1936).

Sulfur Soap Cracks

Medicinal soaps containing a fraction of a per cent of colloidal sulfur often develop rather deep cracks running in both directions. Since it has been found that other soaps made with the same toilet soap base, but containing such additions as mercury or carbolic acid do not behave in this way, the trouble is attributed solely to the presence of sulfur. The behavior of such a sulfur-containing soap can be greatly improved by the addition of from 1 to 3 per cent of casein. The casein solution is prepared as follows: Mix 2 kg. of alkali-soluble casein with 3 kg. of cold water. (1 kg. equals 2.2 lb.) Let stand 1 hour to soften up the casein. Stir into this a boiling solution of 200 grams (0.2 kg.) of borax dissolved in 5 kg. of water. Stir in from 100 to 200 grams of ammonia-water, sp. gr. 0.910, until the whole is smooth and homogeneous. The mass should be clear after the addition of ammonia-water,—usually 100 grams is sufficient. After cooling, from 1 to 3 per cent of this casein solution is used to increase the plasticity and homogeneity of the sulfur soap. *Seifensieder-Ztg.* 63, 211, 235 (1936).

Olive Oil Storage

Careful filtration of olive oil and storage in tanks under a 26-inch vacuum protect the oil from deterioration during storage. L. A. Pelton. *Food Ind.* 8, 65-6 (1936).

Removing Lipoids

Lipoids and other substances having the character of fats are separated from animal or vegetable tissues or the crude fluids from these by treating with an alcohol having from 6 to 10 carbon atoms, or with a mixture of such alcohols. The

process is also applicable for the elimination of the extractive substances. The method is applied to livers. I. G. Farbenindustrie A.G. British Patent No. 435,798.

Adsorbed Soap Cleansers

Adsorption of soap by cotton can be measured quantitatively by standardizing the various factors involved. Conditions which promote cleansing also facilitate adsorption, so that in all probability it is the soap adsorbed on the fibers which cleanses. The adsorption test is therefore suggested as providing an accurate method of comparing the detergent powers of soap solutions. B. G. Acharya and T. S. Wheeler. *Proc. Indian Acad. Sci.* 2, A, 637-45.

Hydrogenated Sunflower Oil

Sunflower-seed fat can be obtained having a definite melting point and consistency. Hydrogenated sunflower-seed oil is melted at 60-75° C. and then crystallized. The nonsolid part is pressed out at 75 atmospheres, the solid part melted again at 60-75°, recrystallized and pressed. The fraction obtained by pressing at 300 atmospheres and 37° is finally left at 15° until solidified. D. A. Nechaev, A. D. Lebedev and I. A. Oberhard. Russian Patent No. 37,787.

Solvent Extraction Cheapest

From a comparison of the relative costs of discontinuous hydraulic pressing, continuous mechanical pressing, and preliminary continuous pressing followed by solvent extraction, it is concluded that the last is the most economical method for extracting oil from decorticated cotton seed, particularly under the conditions prevailing in the Argentine Chaco. J. de Raedt. *Mat. grasses* 27, 10671-3.

Proteins in Toilet Soap

Toilet soap contains double proteins such as phosphoproteins, lipoid such as phosphatides or lecithin, sodium salicylate, phenyl salicylate, glycerol, etc. Ryotaro Manabe. Japanese Patent No. 111,282.

Textile Soaps

FULLING soaps are used in the textile industry to draw the weave together. Tallow makes the best soap for fulling, but it is a little hard to wash out of the goods. A mixture of tallow and palm oil seems to make the best combination. A full boiled settled soap is to be recommended. It may be dried to a low percentage of moisture. It may be cut into bars or it may be run into barrels. A good grade of soap may be produced from the following:

Tallow 535 lb.
Palm oil 125 lb.

Heat these to 118° F., then add

Caustic soda lye, 36° Be..... 360 lb.
Soda ash solution, 330° Be. or
over 75 lb.
Water 50 lb.

A soap used for finishing worsted goods is made from low-titre fats. An excellent combination is 60 per cent of corn oil with 40 per cent of palm oil. This should be a settled soap, thoroughly saponified on the first change, given two salt wash changes, then settled in the usual manner. Salt may appear on the surface of such a soap, which does not detract from its quality but only from its appearance. This can be avoided by using no salt but making all graining changes with caustic soda lye and neutralizing the soap in the crutcher with stearic acid. A soap made in this way will not turn rancid.

Soap for scouring raw wool may be made from any of the low-titre oils such as olive oil foots, red oil, corn oil, soya bean oil, etc., selected according to their price. A popular formula for a 42 per cent fat soap is as follows:

	lb.
Olive oil foots	34
Corn oil	56
Caustic soda lye, 36° Be.....	3
Caustic potash, solid.....	23½
Carbonate of potash	5½
Water to make 42 per cent fat soap.	

F. L. Grant, *Soap, Perfumery and Cosmetics*, 108-10 (1936).

Mildew on white goods is rather difficult to remove. Above all

it is important not to use such strong chemicals that the spots will be changed into holes. The mildewed part should be first rubbed lightly with soap paste, then washed and dried. Sometimes the spots are bleached out by this process alone. For further treatment use a solution of 2 to 5 parts of citric acid in 100 parts of water, or a mixture of 30 parts of commercial hydrogen peroxide, 5 parts of ammonia water, and 125 parts of water. Moisten the spots frequently with this and then rinse in plain water. In extreme cases even this method will fail, for sometimes the structure of the material itself is changed. In any event the spots will not be removed by friction, that is by heavy pounding in the wheel. *Seifen-, ol- und Fettindustrie* 22, 80 (1936).

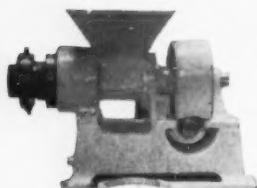
Hydrogenated Soap Cream

A soap cream has a creamy consistency through the temperature range of 40 to 100° F. When examined under a microscope at any temperature in this range, it is found to comprise crystals of soap in a mother liquor. This soap cream is characterized by the fact that more than half of the total real soap is made from oils suitable for soap making other than those of the coconut class, hydrogenated so as to contain more than 45 per cent of saturated fatty acids having at least 18 carbon atoms per molecule. Procter & Gamble Company of Canada, Ltd. Canadian Patent No. 356,799.

Washing Refined Fats

All traces of soapstock may be removed from neutralized oils by 2 to 3 washings with 0.25 per cent sulfuric acid. The washings and oil easily separate into two layers without forming an intermediate layer. Losses of oil are less by this procedure than with plain water washing. M. Sandomirskii and O. Mikhailovskaya. *Masloboino Zhirovoe Delo* 11, 357.9 (1935).

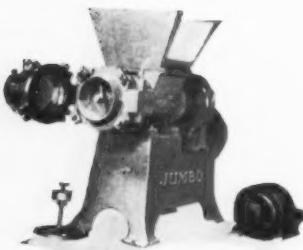
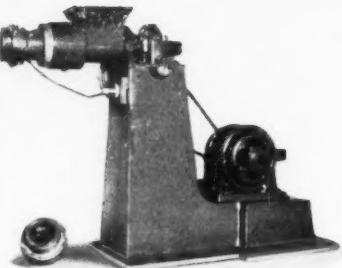
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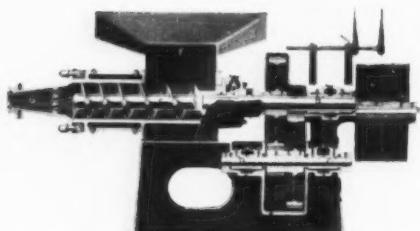
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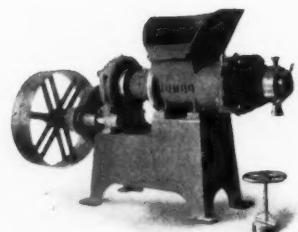


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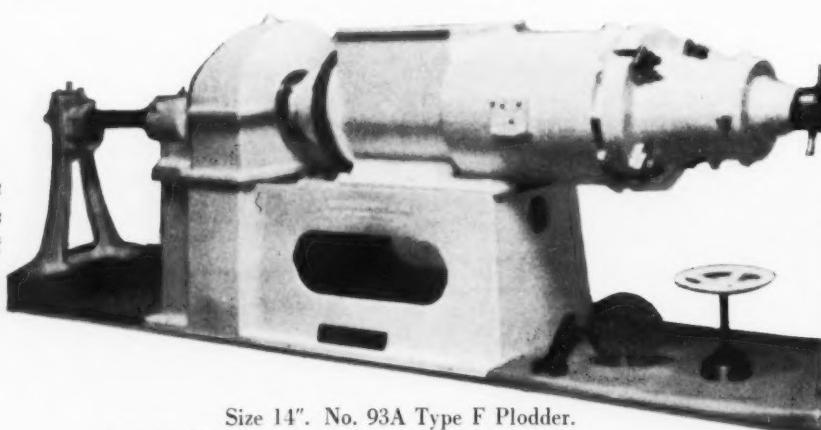
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lined. The
Bearing back
of the screen
has oil sealed
ring to prevent
oil from get-
ting in the
soap.

Products and Processes

Carotene Anti-oxidant

When films of sunflower-seed oil free from carotenoid pigments were exposed to air in the dark or in bright light, the oxidation rate rapidly increased to a maximum after a short induction period. When crude carotene was added to the oil there was almost no oxidation in the dark or in dim light even after 30 days. When the oil containing added carotene was exposed to bright indirect sunlight the induction period was prolonged several days until the carotene was bleached by the light, after which the oxidation rate increased in practically the same manner as that of the oil without carotene. R. Retovsky. *Bull. soc. chim. biol.* **17**, 1614-29.

Chlorinated Soap Fats

Soap is manufactured by treating chlorinated compounds of saturated fatty acids or their esters with alkali. Hydrogenated fish oils are used as raw material. Yoshio Tanaka and Yurei Nakano. Japanese Patent No. 111,210.

Modified Phosphate

A 5 per cent solution of trisodium phosphate is an excellent detergent for use by the dairy industry. This solution has a distinct bactericidal action. The corrosive action of the alkaline salt can be eliminated by the addition of 3 per cent of sodium chromate to the phosphate crystals. L. A. Rogers and Fred C. Evans. *J. Bact.* **31**, 87-8 (1936).

Oxygen Stabilized Soaps

Bleaching, disinfecting and washing compositions containing per-compounds such as hydrogen peroxide or sodium perborate, salts of pyro- or metaphosphoric acid, and alkali such as waterglass, soda ash, borax or alkali orthophosphates, to which may be added soap, saponins,

alkali salts of sulfonated oils or sulfated fatty alcohols, and other washing agents,—are stabilized by adding colorless, sparingly soluble tin compounds. Examples of such compounds are stannic acid, magnesium, barium and other alkaline earth stannates, the silicate, or soluble tin salts from which such compounds may be formed. Henkel & Cie. G.m.b.H. British Patent No. 437,128.

Sulfo-Ester Phosphate Mixtures

Washing agents are made by mixing alkali phosphates with the sulfuric esters of higher alcohols. A typical mixture contains 75 parts of trisodium phosphate and 25 parts of the sodium salt of the sulfuric ester of palmitic acid. Deutsche Hydrierwerke A.G. German Patent No. 623,403.

Synthetic Soap Oil

By heating a mixture of fish oil and butyl alcohol (or amyl alcohol, cyclohexanol or methylecyclohexanol) in the presence of a mineral acid or a caustic alkali, fatty acids in the oil are esterified. The oil is next hydrogenated until its iodine value becomes 100-40. The product is a liquid at room temperature and its melting point and viscosity are low. It is suitable for use in the textile industry, for soap manufacture, etc. Asahi Denka Kogyo K. K. Japanese Patent No. 111,341.

Odorless Solvent Soaps

Fat solvents usually possess a characteristic odor. Therefore the greater the amount of such a product there is added to soap, the more noticeable this odor will be. Increasing the amount of emulsifier (as well as the amount of the solvent), decreases the foaming power of the soap. Each advantage has a corresponding disadvantage, so that it is necessary to choose a middle course. Triethanolamine oleate serves as an odorless reagent, which is

soluble in most organic solvents, and which can be added to solid or liquid soap. Dissolve 1 part of triethanolamine oleate in 2 parts of benzine, acetone, or xylol, etc. and add this solution to 2 to 3 parts of a cold-process soap or to 2 to 4 parts of a potassium soap solution. *Seifensieder-Ztg.* **63**, 234-5 (1936).

Phosphate Detergents

Alkaline detergents are composed of one molecule of trisodium phosphate to one to five molecules of alkali-metal salts of inorganic or low aliphatic acids which are less strongly dissociated in water (weaker acids), than phosphoric,—for example, acetates, borates, carbonates, molybdates, silicates and arsenates. Julius P. Hansel. British Patent No. 436,332.

Textile Assistants

Products useful as textile assistants are prepared by causing a lower alkyl ester of an inorganic acid to react with a mercaptobenzothiazole that has an alkyl group containing at least 8 carbon atoms in the 2-position and may carry substituents such as methyl, oxymethyl and such groups. Imperial Chemical Industries, Ltd. and Alfred W. Baldwin. British Patent No. 437,285.

Bleaching Fats

Crude fats are more difficult to bleach the higher they are in free fatty acids. If the dark color is due to overheating, as a rule, nothing can be done. Sometimes fats that have not been completely bleached by persulfate are further improved by treatment with 2 per cent of 30-45 per cent hydrogen peroxide at the lowest possible temperature; oils at room temperature, and solid fats only a few degrees above their melting point. Treatment should be carried out in enamel, wood or stoneware, not in metal vessels. The mixture should be allowed to stand overnight. This method often leads to good results where other methods fail. Rape-seed oil cannot be bleached in this way; for some reason there is very little effect. *Seifensieder-Ztg.* **63**, 212 (1936).

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Publications

If you want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

222—New Floor Truck

Lewis-Shepard Co., Boston, is introducing a new floor truck equipped with balloon tires for use in plant handling of fragile products. Other models are available with hard rubber tires. The concern is also mailing a folder captioned "A Quick Lesson in Materials Handling" illustrating the use of stackers and portable elevators for solving plant storage problems.

223—Sanitary Products

Fuld Bros., Baltimore, have just issued their latest catalog showing and describing their complete line of sanitary chemicals. With the catalog the latest Fuld price list is included as a separate insert.

224—Shipping Box Design

Hinde & Dauch Paper Co., Sandusky, Ohio, has just issued a new portfolio showing some of the latest ideas in shipping box design. The value of shipping box merchandising is emphasized and various illustrations show how, through proper design, modern shipping boxes may be used as effective counter or floor displays. Copies of the portfolio will be mailed upon request.

225—Laundry Catalog

Fry Bros. Co., Cincinnati, has issued a new catalog, No. 336, listing and describing its complete line of laundry and dry cleaners' supplies.

226—Coconut Market Review

Leo Schnurmacher, Inc., P. O. Box 1281, Manila, P. I., has just released a "Review of Coconut Products" for 1935. A brief review of

market developments during 1935 is included, as well as a series of tables dealing with prices and shipments of coconut oil and copra from the Philippines.

227—Catalog Folder

E. M. Sergeant Pulp & Chemical Co., New York, has prepared a folder listing the animal and vegetable oils and industrial chemicals which the company supplies. Copies may be obtained.

228—Deodorant Blocks

Clifton Chemical Co., New York, has just mailed a new folder illustrating and describing its complete line of "Sentinel" deodorizing blocks, moth cakes, moth crystals, wall containers, etc. Copies are available.

229—Packaging Booklet

Package Machinery Co., Springfield, Mass., recently mailed a folder emphasizing the importance of use of up-to-date packaging machinery to solve modern packaging problems. Lower cost, increased output and greater flexibility are claimed for modern packaging equipment.

230—Sanitary Supply Catalog

Chemical Supply Co., Cleveland, has just issued a new price list and catalog covering its line of sanitary products. Copies will be mailed upon request.

231—Bulletin Service

Woburn Degreasing Co., Harrison, N. J., has instituted a new bulletin service which will involve periodical mailing of mimeographed releases to users of fats and fat products in the soap, paper, textile and other industries. The first bulletin in the series deals with the volumetric analysis of soaps and fats for total fatty acids. A specially designed burette and its use in determinations are described. Readers of SOAP desiring copies of this bulletin may have them and a letter addressed to Woburn Degreasing Co. will ensure receipt of future mailings.

pH Values of Soaps

The pH values of soaps rise with the molecular weight of their fatty acids. A 0.01 normal solution of sodium laurate at 90° C. has a pH value of 8.56 and indicates a hydrolysis of 2.5 per cent. The corresponding values for sodium stearate are pH 9.27 and 13 per cent dissociation, according to McBain. The following values have been determined for commercial soaps:

Household soap (0.032 per cent free alkali).....	pH 8.80
Laundry soap (0.16 per cent free alkali).....	pH 8.95
Toilet soap (0.016 per cent free alkali).....	pH 9.00
Coconut oil soap (0.00 per cent free alkali).....	pH 8.35
Glycerine soap (0.012 per cent free alkali).....	pH 8.80
Shaving soap, milled (0.012 per cent free alkali).....	pH 8.95
Oil soap (0.32 per cent free alkali)	pH 8.90

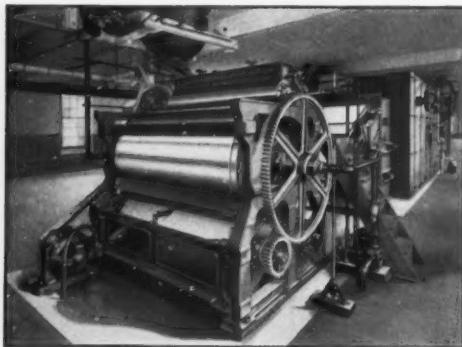
(Ed. Note—All of these values are low as compared with those of the dilute solutions used in actual practice. For example, a 0.01 normal solution of sodium stearate is a concentration of about 0.3 per cent, while the concentration of a soap in use, as in a commercial laundry is nearer 0.1 per cent. The more dilute solution corresponds to greater hydrolysis and higher pH, somewhere in the neighborhood of 10.2. The values given for the commercial soaps are probably for saturated solutions.)

According to Rhodes, the most favorable detergent action calls for a pH of 10.7. For cosmetic use this hydroxyl ion concentration is considered too high. It may be reduced by the addition of borax. Superfattening material of the nature of lanolin scarcely reduces the pH value at all. *Soap, Perfumery & Cosmetics*, Feb. 1936.

Deodorizing Oils

Animal, vegetable and mineral oils and fats are rendered odorless after the usual refining, by allowing them to trickle in a fine stream over a series of inclined surfaces in a high vacuum at 100-150° C. The gases or aromatic vapors evolved are sucked off above the inclined surfaces. N. V. Machinerie-en Apparaten Fabrieken. German Patent No. 620,703.

PRODUCING THE PERFECT CHIP FOR ALL SOAP MAKING NEEDS



• New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. I.

• The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter, quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

PROCTOR & SCHWARTZ, INC.
• SEVENTH ST. & TABOR ROAD PHILADELPHIA •

Breaking into the English market

The United Kingdom and the British Empire offer profitable fields for sales expansion. Many well-known American manufacturers are concentrating on this market. If you are interested why not become a subscriber to the "Soap, Perfumery and Cosmetics Trade Review"—the only British trade paper produced exclusively for manufacturers of soaps and cosmetics.

The "S. P. C." is more than a trade paper—it provides a thorough marketing service for its subscribers. It will give you help in finding the right manufacturer to produce your goods—it will put you in touch with selling agents and advertising agents. It will collect and forward information and render other useful services entirely without charge. A year's subscription costs you only \$3.00 (or \$5.00 for 2 years). Why not send in your subscription now for two years? Send us your check or international money order.



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New Patents

Conducted by
**Lancaster, Allwine &
Rommel**
Registered Attorneys
PATENT AND TRADE-MARK CAUSES

815 15th Street, N. W.,
Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,032,482, Composition for Cleaning Metal. Patented March 3, 1936, by Sidney M. Hull, Western Springs, Ill. A cleaning composition particularly adapted for use on metal surfaces consisting essentially of neutralized sulphonated vegetable oil, 10 to 25 parts; an emulsifying agent of the group consisting of sodium oleate and sodium alginate, 5 to 15 parts; and absorbent of the class consisting of kieselguhr and activated carbon, 30 to 60 parts.

No. 2,032,524, Liquid Soap Converter, Patented March 3, 1936, by Arthur L. Bobrick, San Marino, Calif. The process of producing liquid soap from a concentrated soap base which consists in gradually feeding a solvent into the bottom of a conversion receptacle, and suspending a concentrate on a floating porous carrier in the receptacle, for gradually subjecting the concentrate to the dissolution by the solvent as the level of the solvent rises in the receptacle.

No. 2,033,544, Waxing and Polishing Compositions, patented March 10, 1936, by Anderson W. Ralston and Carl W. Christensen, Chicago, Ill., assignors to Armour and Company, Chicago. A composition for waxing or polishing comprising a major quantity of a wax constituent including a ketone, and a minor quantity of a liquid vehicle for the wax

constituent, the ketone having the general structure:



wherein R is a radical chosen from the group consisting of carbocyclic and heterocyclic radicals, and R' is an alkyl radical containing at least eleven carbon atoms.

No. 2,033,732, Process for the Working Up Soaps, patented March 10, 1936, by Oskar Neiss, Hamburg, Germany, assignor to firm Hanseatische Muhlenwerke Aktiengesellschaft, Hamburg, Germany. Process for the treatment of aqueous liquids containing soluble soap, which includes treating the liquids in an electrolytic cell, in which the anode is separate from the cathode by a porous diaphragm, thereby decomposing the soluble soap, and isolating the free fatty acid derived from such decomposition at the anode.

No. 2,034,070, Cleaning Composition, Patented March 17, 1936, by Arthur S. Weygandt, Cleveland Heights, Ohio, assignor to Grasselli Chemical Company, Cleveland. A cleaning composition which will liberate HCl when dissolved in water comprising discrete particles of sodium disulfate and discrete particles of heat treated magnesium chloride which have formed on their surface only as a result of the heat treating a surface film of a basic magnesium compound and having a core of magnesium chloride, the composition being substantially non-caking and does not liberate hydrochloric acid gas when dry.

No. 2,034,361, Alkaline Detergent Powder, Patented March 17, 1936, by Roy C. Sutton, University City, Mo. An alkaline detergent powder substantially free of alkaline earth comprising alkali-metal hypochlorite solution which imparts to the powder available chlorine in the proportion of substantially 1 to 15 per cent, alkali metal compound having alkaline characteristics in the proportion of substantially 30 to 90 per cent, water in the proportion of substantially 15 to 40 per cent and finely-divided solid substantially-inert substantially-water-insoluble inorganic water-absorptive material to absorb excess moisture.

No. 2,035,126, Rendering Process, Patented March 24, 1936, by John P. Harris, Wilmette, Ill., assignor to Industrial Chemical Sales Company, Inc., New York, N. Y. A method of rendering animal fats from tissues which comprises adding activated carbon capable of absorbing substantial quantities of gas and the like to a charge of fats to be rendered, the carbon added being between .05 and 1.0 per cent of the charge by weight, and maintaining the charge in a closed vessel at a rendering temperature in the presence of the carbon for a period of more than 30 minutes.

No. 2,035,940, Detergent Composition, Patented March 31, 1936, by John K. Berresford, Pelham Manor, N. Y. A scouring detergent paste adapted upon rubbing on the hands to quickly loosen and take up grease therefrom with subsequent easy removal by a simple water wash, the paste being composed of 14 to 52 per cent by weight of liquid kerosene containing in solution a minor amount, not greater than 30 per cent by weight on the kerosene of an oil-miscible organic emulsifying agent adapted to render the kerosene emulsifiable and to lessen the water repellent properties of the kerosene, in admixture with 86 to 48 per cent by weight of a solid hard fine-grained scouring abrasive consisting of a water-soluble inorganic alkaline detergent salt in granular form of size 30 to 50 mesh, the paste being free of aqueous moisture whereby the solvent action of the liquid kerosene on grease is unhindered and the hard granular character of the abrasive salt is preserved.

Oxidized Amines in Detergents

Tertiary amines which contain an aliphatic or hydroaromatic radical formed of at least 6 carbon atoms are treated with oxidizing agents capable of transforming the amines to their oxides, in order to produce wetting agents. Soc. pour l'ind. chim. a Bale. French Patent No. 786,911.

Improved Textile Soaps

Fatty acids whose alkali salts have the character of soaps are improved for the purpose of treating textiles by introducing hydrophilic groups into the CH₂ groups next to the carboxyl groups. For example, a-chlorolauric acid is heated with mono- or diethanolamine, pyridine or ethylenediamine. I. G. Farbenind. A.G. French Patent No. 789,004.

DEO-BASE

Reg. U. S. Pat. Off.

No "Kerosene Breath"—

No insecticide spray can be popular if it has "kerosene breath."

DEO-BASE, the modern insecticide base, enables you to meet the consumer demand for complete freedom from kerosene odor. That's only one reason for the superiority of DEO-BASE. There are five more.

You want re-orders, as well as orders. DEO-BASE will help you get both. DEO-BASE enables you to use small quantities of delicate perfumes in your insecticides. A finished spray made with DEO-BASE can be sold everywhere for use anywhere.

No wonder that the Insecticide Industry calls DEO-BASE
"The Ideal Insecticide Base"

L. SONNEBORN SONS, INC.

REFINERS OF WHITE MINERAL OIL AND PETROLATUM
Refineries: Petrolia and Franklin, Pa.

NEW YORK
88 Lexington Ave.

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STOCKS CARRIED IN PRINCIPAL CITIES

SANITARY PRODUCTS

A Section of "SOAP" Dealing with

INSECTICIDES • DISINFECTANTS • EXTERMINATING
FLOOR PRODUCTS • SANITARY SUPPLIES • MOTH PRODUCTS

MAXIMUM KILLING POWER

In the Natural Extract

When a forcing agent, such as heat, is used with any solvent there is unavoidably extracted a considerable amount of highly undesirable inert organic unsaturates from the Pyrethrum flowers.

The Powco cold direct extraction process does not use a forcing agent and is made directly with petroleum distillate: *the natural solvent for the extraction of the maximum killing power.*

Killing Power—that's the thing

Thus in Powco Brand Pyrethrum Extract you get exactly what you want—the Pyrethrins in their own natural environment.

JOHN POWELL & Co., Inc.
114 EAST 32nd STREET NEW YORK

POWCO
BRAND
PURE U.S. P.E.O. EXTRACT

Specialists in
Pyrethrum and
Rotenone products

PRENTOX

(REG. TRADE MARK)

HOUSEHOLD CONCENTRATE No. 20



An attitude of reasonable skepticism in regard to advertising claims is normal. One of the more recent converts to Prentox Concentrate had his spray tested by an independent laboratory against one made from the best Pyrethrum Concentrate he could find, both at 1-19 dilution, with the following results:—

PRENTOX HOUSEHOLD CONC. No. 20

Lowest average kill—77%
Highest average kill—90%
General average kill—85%

PYRETHRUM CONC. No. 20

Lowest average kill—68%
Highest average kill—77%
General average kill—73%

Gratifying as this comparison is, it fails to indicate the far greater efficiency of the Prentox Concentrate against the really difficult household insects such as roaches, bed bugs, fleas, etc., nor does it show the substantial difference in cost.

"Better Sprays at Lower Cost"



R. J. PRENTISS & CO., INC.

100 GOLD STREET

NEW YORK, N. Y.

PUT THE PACKAGE FORWARD

IN YOUR PLANS FOR SALES!

MODERN INSECTICIDES call for genius in setting up a PACKAGING appeal · designs that catch the eye on crowded counters · the touch that points "that one" among the rank and file.

CONTAINS EXTRACT OF PYRETHRUM FLOWERS

WARDS

100% ACTIVE INGREDIENTS

DAIRY
FLY SPRAY



BY MONTGOMERY WARD &

MODERN
SELLING
METHODS
GO "NATIONAL"



BUGINE
REG. U. S. PAT. OFF.
BED BUG LIQUID

GUARANTEED
KILLER
OF
BED BUGS,
ROACHES
AND THEIR EGGS
STAINLESS

ON THE MARKET NEARLY 50 YEARS

NATIONAL CAN COMPANY · 'Inc.'

One of America's Largest Canmakers

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK
SALES OFFICES AND PLANTS
NEW YORK CITY • BALTIMORE • BROOKLYN • CHICAGO • BOSTON • DETROIT • NEW ORLEANS • HAMILTON, OHIO

TO YOU .. whose customers pursue the insect with killing instinct · "NATIONAL" brings a record of "hits" announced thru impressive consumer acceptance.

PYROCIDE

20

THE FIRST STANDARD BRAND

PYROCIDE 20 IS THE BEST SOURCE OF

PYROCIDE 20 is guaranteed to contain 2.0 grams of pyrethrins per 100 cc., equivalent to 2.4 per cent pyrethrins.

The use of Pyrocide 20 eliminates losses of pyrethrins in percolating. The desired pyrethrin content in your livestock fly spray is easily and accurately obtained by dissolving Pyrocide 20 in a suitable mineral oil base.

Pyrocide 20 is one of the best repellents known and its repellent effect can be increased by the addition of pine oil.

Pyrocide 20 with pine oil in a suitable oil base makes the best fly killer.

UNIFORM KILLING POWER

PYRETHRUM FOR LIVESTOCK SPRAYS

and repellent for use on livestock. Write for further information and formulas
for making livestock fly sprays using Pyrocide 20.

Pyrocide 20 is also the best source of pyrethrins for manufacturing
household fly sprays.

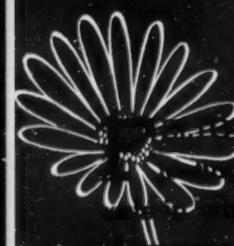
Shipped in 5, 10, 30, 53 gallon drums. Warehouse stocks in New York,
Los Angeles and Minneapolis.

McLAUGHLIN GORMLEY KING COMPANY • MINNEAPOLIS, MINNESOTA
405 Lexington Avenue, New York City

PYROCIDÉ 20
STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

AQUAROMES

WATER SOLUBLE PERFUME OILS



Aquaromes impart pleasant fragrance to all kinds of products . . . which water is used as a base . . . cosmetics, liquid soaps, deodorant sprays and many others.

They are completely soluble . . . and will not produce sediment, oil film or cloudiness.

AQUAROMES
are available in any fragrance!
PRICED FROM \$1 to \$5 per

We invite you to try AQUAROMES in your products and will be pleased to submit working samples.

FELTON CHEMICAL COMPANY

INCORPORATED
609 TOWER AVENUE, BROOKLYN, N. Y.
Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Executive and Factory: 805 JOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass.; Philadelphia, Pa.; New York, N. Y.; Chicago, Ill.; St. Louis, Mo.; New Orleans, La.; San Francisco, Calif.; Los Angeles, Calif.; Seattle, Wash.; Atlanta, Ga.; Birmingham, Ala.; Memphis, Tenn.; Denver, Colo.; Salt Lake City, Utah; Portland, Ore.; Honolulu, Hawaii.

Announcing



MOTH PROOFING CONCENTRATES

Now you can buy a new, but time-tested, moth proofing concentrate. *Its effectiveness has been thoroughly proved by extensive laboratory research and five years of practical use.*

Powco Brand Moth Proofing Concentrate is available in two forms: 1. Without pyrethrum, where only proofing against moth and carpet beetle damage is required. 2. With pyrethrum where material is already infested and a killer is required in addition to the future proofing protection.

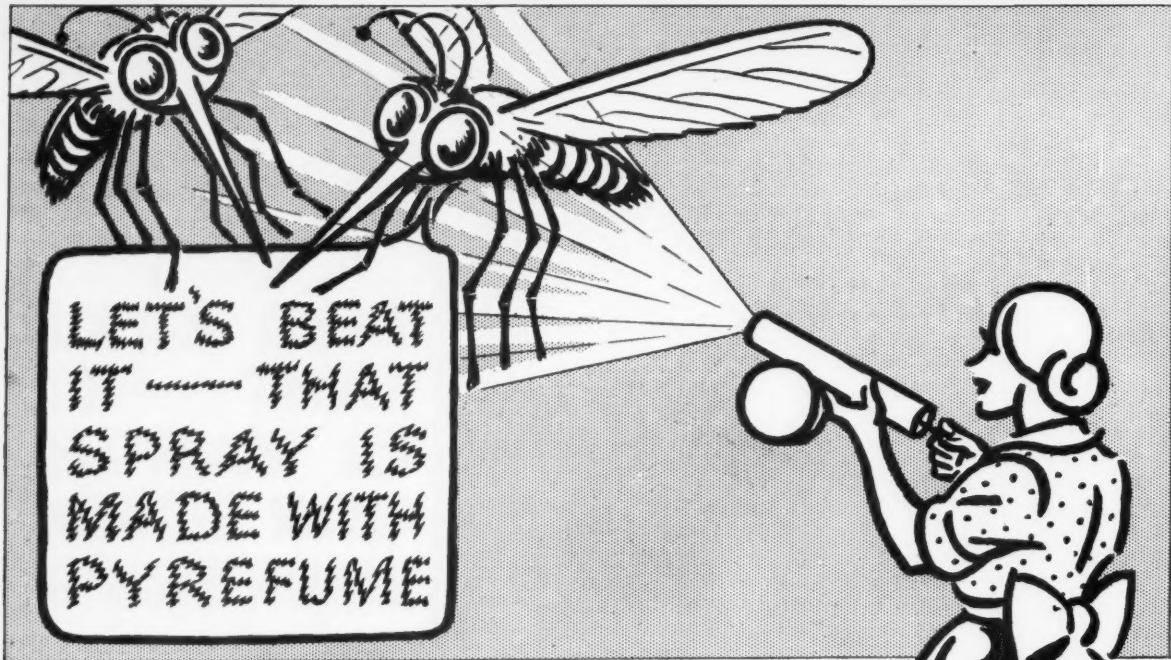
Powco Brand Moth Proofing Concentrates proof garments, upholstered furniture, fabrics, etc., for a period of at least three years . . . equally effective against carpet beetles . . . will not shrink fabrics or change their appearance or texture nor dust off . . . proofing qualities are not destroyed by light, pressing, brushing, steaming or vacuum-cleaning . . . These qualities are removed only by dry cleaning, spot removers, or washing with soap and water . . . non-poisonous . . . safe . . . effective.

Powco Brand Moth Proofing Concentrates are available only to insecticide manufacturers. This presents a real opportunity for you to broaden your field of profitable sales.

John Powell & Co., Inc.

114 East 32nd Street

New York



**FOR A MORE EFFECTIVE
INSECTICIDE *use***

PYREFUME

THE PERFECTED PYRETHRUM CONCENTRATE

SUPER 20 • SUPER 30

Scientific precision—constant laboratory control—years of experience—exceptionally complete facilities . . . these are the factors which go to make PYREFUME an insecticide of high toxicity and uniform killing power.

Leading laboratories in this country and abroad confirm the accuracy of the Tattersfield-Seil method followed by our laboratories in the evaluation of Pyrethrins in Pyrethrum Flowers.

Not satisfied, however, with merely "calculating" the Pyrethrins content of the extract from this assay of the flowers, we also test the extract itself by an exclusive process which enables us to guarantee a Pyrethrins content of 2 grs. per 100 cc. in PYREFUME SUPER 20 and 3 grs. per 100 cc. in PYREFUME SUPER 30. In addition, the toxicity of PYREFUME is tested physiologically in our own Peet-Grady chambers.

Call on us for technical data on all types of insecticides.

S. B. PENICK & COMPANY

132 NASSAU STREET, NEW YORK

1228 WEST KINZIE STREET, CHICAGO

REPRESENTATIVES ALL OVER THE WORLD

DICHLOROMES NORDA

For Paradichlor Benzene

Series A \$1.00

Bouquet A
Lilac A
Rose A
Violet A
Sweet Pea A
Gardenia A

Series B \$1.50

Bouquet B
Lilac B
Rose B
Violet B
Sweet Pea B
Gardenia B

Series C \$2.00

Bouquet C
Lilac C
Rose C
Violet C
Sweet Pea C
Gardenia C

SECTOROMES NORDA

For Fly Sprays

\$.50 lb.

Sectorome No. 1
Sectorome No. 2
Sectorome No. 3
Sectorome No. 4
Sectorome No. 5
Sectorome No. 6

\$1.00 lb.

Sectorome No. 11
Sectorome No. 22
Sectorome No. 33
Sectorome No. 44
Sectorome No. 55
Sectorome No. 66

Norda

ESSENTIAL OIL
& CHEMICAL CO., INC.

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FOR THE BETTER GRADE PRODUCT

We Recommend:

FOUGERE SUPREME \$6.00 per pound

BOUQUET HENO \$6.00 per pound

ROSE SUPREME \$8.00 per pound

LILAC SUPREME \$8.00 per pound

BOUQUET G-2328 \$4.00 per pound

DEVELOPED by our laboratory for use in PARADICHLOR-BENZENE and NAPHTHALENE preparations that are sold on a quality basis and where a distinctive high grade perfume is an asset. While slightly higher in price than perfume oils usually employed in this type of work they justify their costs by the excellent results they give. So that you may readily determine their value we have incorporated these odors in paradichlorbenzene and naphthalene and will gladly submit such samples to you.

We are in a position to extend the fullest cooperation to manufacturers as regards special odor requirements and will welcome any opportunity to work with you in the solving of your particular perfume oil problem. If you are not fully satisfied with your present oils why not give us a chance to submit samples for purposes of comparison?

P. R. DREYER INC.

12 East 12th Street

New York City

"It's the Odor that Sells the Product"



Uniformity

assured by constant tests in the
most complete laboratories in
the insecticide industry

The finest milled Pyrethrum and Derris Powders in the world are produced by McCormick & Company. These powders are standardized analytically and biologically in the McCormick Laboratories and, because of their extreme fineness, contain more killing particles per ounce. McCormick & Company also produces Pyrethrum and Derris Powders which are stabilized to prolong their toxicity when exposed to light and air. Our recommendations for the use of these powders are based upon actual field performance. Write for information. McCormick & Co., Inc., Baltimore, Md.

McCormick's PYRETHRUM AND DERRIS POWDERS

Here you see, in operation, the Tyler Ro-Tap Testing Sieve Shaker in the McCormick Laboratories. This device tests, with mathematical accuracy, the fineness of the grind of each mill run of McCormick's Pyrethrum and Derris Powders.

McCormick's

STANDARDIZED PYRETHRUM AND DERRIS PRODUCTS

PYRETHROL 20 • PYRETHRUM POWDER • DERRIS POWDER
DERRIS EXTRACT • DERRIS RESINATE • ROTENONE CRYSTALS

The good ones are in any living-

Gone are the days when a housewife dared not fly-spray her living-room. Today's sprays need not be ashamed in anyone's home—they can be made to smell agreeable.

What it takes

van Ameringen-Haebler, Inc. is widely known for the development of perfume materials for fly-sprays. There's no

time **now** for "maybe's." Call on people who know how to help and are willing to do a real job for you. Only experts are good enough.

And now, THE OFFER:

Express, mail or bring to our New York office one gallon of your spray, **unperfumed**. Tell

van Ameringen-

Manufacturers and Importers of Aromatic Essentials

AROMATIC CHEMICALS—ESSENTIAL OILS—FLAVORS—PERFUME SPECIALTIES—

are not ashamed living-room.

us how much per gallon you can afford, to make it smell better. (It doesn't pay to stint).

We'll send you back your spray **neutralized or scented** in a way that will positively help you sell goods this season. Unnecessary to repeat that time is short. Better do it at once.

OPPORTUNITY

This year promises to be a big fly-spray year.

How do we know?

First of all, fly-spray makers have been advertising and have succeeded in making the public spray-conscious.

Secondly, the sales curves of the past few years show *consumer acceptance increasing*. That means more people are willing to accept the suggestion that they use a fly-spray.

Finally, sprays are being "parlorized." No longer is it necessary to apologize for the odor. *The good ones are not ashamed in any living-room.*

Haebler, Inc.

315 FOURTH AVENUE, NEW YORK

Chicago

Toronto

Los Angeles

FACTORY, ELIZABETH, N. J.

May, 1936

Say you saw it in SOAP!

Modernized Soap Dispensers

CLIFTON

Durable—Attractive—Sturdy—Chromium Plated



MODERNE

Though low in price, the Moderne would be an adornment in any wash room. Also made with goose neck bracket.



TRICONIC

Has a self adjusting metal to metal seat assuring a long life. Gives as good satisfaction as some dispensers costing twice as much.



DUODEK

One of the old standbys in the low-priced field. Replaceable glass globe.



TILTYPE

A pendulum never gets out of order. It just swings and swings. There's nothing to get out of order on the Tilttype. Can be furnished with metal globe. Also made to dispense powder.



GOOSE NECK TRICONIC



GOOSE NECK DUODEK



GOOSE NECK TILTYPE



TANKS

White enamel, monel or china.



MICHROME VALVE

Micrometer tooled parts assured long life.

ALSO PIPING AND FITTINGS

These show a few styles of Clifton Soapers. New complete circular on request.

Also ask about the following:
 24 and 40 oz. Deodorizing Blocks and Containers
 4 ounce deodorizing cakes
 Liquid Soap
 Liquid Soap Dispensers
 Liquid Soap Base
 Floor Scrub Soaps
 Oil Soaps
 Rubless Wax
 Coal Tar Disinfectants
 Pine Disinfectant
 Insecticide
 Moth Cakes
 Moth Crystals
 Moth Spray
 Metal Polish
 Furniture Cream
 Shampoo Base

CLIFTON CHEMICAL CO., INC.

246 FRONT ST., NEW YORK, N. Y.



LIKE A BREATH OF CLEAN, FRESH AIR!

KEROZONE, the newest addition to Givaudan's list of fly spray odors, offers interesting new scenting possibilities. It has a wholesome, pleasing, out-of-doors odor that clears the atmosphere like a breath of fresh air.

KEROZONE is a new and novel idea . . . something distinctly different in fly spray odors. Let us put it to work selling your product. It's low in cost . . . and a very little goes a long way. Write us for samples and information.

BRANCHES:

Philadelphia	Los Angeles
Cincinnati	Detroit
Baltimore	Dallas



BRANCHES:

New Orleans	San Francisco
Chicago	Montreal
Seattle	Havana



Let Us Handle Your Disinfectant Problems!

Why take chances with contamination of your other products by making your own disinfectants?

Why not guard against the rejection of goods such as paper cups, liquid soaps, etc., which have absorbed disinfectant odors, when there is no real saving in doing your own manufacturing?

Let us supply you with your Coal Tar and Pine Oil disinfectants, delivered to you under your own brand-name, ready to ship to your trade—no bother, no odor, no trouble in your plant. Our extensive manufacturing facilities and years of experience in this line enable us to serve you with the highest quality disinfectants at a great saving over your present cost. It is worth your while to learn what we can do for you.

(Every lot is tested for germ-killing power, and the phenol coefficient is shown on the invoice.)

No sales at retail or to the consuming trade

BAIRD & McGUIRE, INC.
HOLBROOK, MASS. ST. LOUIS, MO.

New York City and New Jersey Representative

EASTERN STATES SUPPLY CO., 127 Troutman Street, Brooklyn, N. Y.

Phone: EVergreen 8-2498



SANITARY PRODUCTS



A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

The Editorial View

MANUFACTURERS of pine oil disinfectant may receive a shock one of these days, if they have not already, in the form of a notice from the Bureau of Internal Revenue that their sales of pine disinfectant are subject to the ten per cent excise tax, usually paid on cosmetics. The reason is that some manufacturers have suggested on the labels of their containers that pine disinfectant is a good thing to add to the bath in small amount,—sort of a liquid bath salt as it were. Other manufacturers, not to be outdone, have followed suit. And now, all are liable for the luxury tax because they have suggested a cosmetic use for their pine disinfectant, and have printed it right on the label. If you have been contemplating adding bath and toilet uses on your label,—do not forget that you will become liable for the tax also.

—and then damn the whole industry with the brand of "racket" when they find that they have been stung again. Perhaps if buyers would change their buying tactics, there would be less opportunity for racketeers to stay in the business.

DURING the recent floods in several eastern states, the call for disinfectants for shipment post haste to the flooded areas to aid in preventing disease epidemics, received a whole-hearted response from the industry. Plant and office staffs worked night and day to meet the terrific demand created overnight by the sudden floods,—and the pleas of municipal authorities for immediate shipments. And, we are told, the danger of epidemics past, and the work of cleaning up the appalling mess being less of an emergency character, certain public health authorities issued statements against the purchase of any disinfectant as so much money wasted. All we can say is that many tons of disinfectants were used in spite of the "warning" of these authorities,—and the floods, the most terrible in the history of the eastern half of the country, were not followed by the usual aftermath of such calamities,—disease epidemics. This tells the story better than all the "warnings" in the world.

ACCUSATIONS that the janitor supply business is purely a "racket" have of late brought forth spirited replies from within the industry. Inasmuch as disinfectants, deodorants, and other sanitary specialties have been under fire,—their quality, their composition, the prices at which they sell,—the president of the National Association of Insecticide & Disinfectant Manufacturers has filed a strong protest against classifying all suppliers of these materials as racketeers because of the crooked minority by whom the critics choose to judge the industry. Unfortunately, one bad actor in an industry can do more to tear down its reputation than ten reputable firms can do to build it up. Buyers are prone to remember their sad experiences. Nevertheless, they continue to invite further experiences of the same character by giving the greatest attention to price, and little to quality,

FOR doing the "exterminating" work in an apartment house of forty-two families, we recently saw a quotation of two dollars per month. Imagine,—less than five cents per month per apartment! Is there any wonder that the rank and file of the exterminating industry is in bad repute with building owners and operators? How could anybody of intelligence receive such a quotation and not put the stamp of "chiseler" on the industry from which such a figure might emanate?

JANITOR SUPPLIES--

A Racket?

IS the janitor supply business a racket? It is if some of the charges which have been directed against it by certain consuming groups are true,—charges emanating mostly from purchasing agents for schools,—charges which embrace excessive prices, high-pressure selling, exaggerated and untruthful advertising, and general "ballyhoo". Although janitor supplies are sold to a wide range of hospitals, hotels, institutions, factories, office buildings, and other establishments, chief criticism,—and as far as can be determined, sole criticism,—comes from the ranks of school managers and purchasing agents. And behind the criticism, it is usually possible to trace the influence of these various books, pamphlets, and services which undertake to "protect" the consumer,—books which have been published by Consumers' Research, and articles by these authors who tell all, and reduce all things, chemical and otherwise, to the simplest of terms under titles of "the truth about this" and "the truth about that." And we must also not forget the influence of the various and sundry "formula" books which also are a great factor in reducing all things chemical to the level of common understanding.

Accusations that the janitor supply business is a racket have been made from time to time in recent years. The accusations have been of such a character that they have indeed unsettled the minds of a large number of purchasing agents, and aroused the suspicion that perhaps they are true. On the one hand, there is the accuser, possibly a school superintendent or a purchasing agent for a school system, or a buyer for a hospital or a municipality. Quite obviously, on the face of things, he has no ax to grind. He cites cases and analyzes costs, and makes it look bad for the janitor supply manufacturer. On the other hand, there is the manufacturer or the jobber. In either case, he most certainly does have an ax to grind. He is interested in selling and continuing to sell his goods. Whether he is right or wrong, people would expect him to claim that he is right and defend his goods, his prices, and his practices. Now, there is the third group, the rank and file of purchasing agents for schools, hospitals, institutions, etc. who hear the arguments of the two sides, and who are not in a position to judge scientifically the facts of the case. But, knowing that the critical school superintendent who speaks in common language which all may understand, has no ax to grind, buyers are inclined to believe what he says,—and especially so when all chemical technicalities are reduced and explained in the most

simple of words. In short, the critic is "two up" on the manufacturer right from the beginning because of his position if for no other reason.

Recent criticism of the janitor supply business has been very specific and pointed. The rub for the industry lies in the fact that in spite of unjust criticism, there is a very considerable element of truth in much that has been said and printed. The manner in which certain janitor supply houses conduct their businesses, unquestionably deserves the label of "racket". But they do not represent the industry, and they are not the industry. The bulk of the business is still in the hands of reputable manufacturers and jobbers. These latter are not responsible for the "racketeers" in the business. Rather are the buyers who have been impressed with their high promises and low prices, responsible for their presence. The reputable janitor supply house wants no part of them and they are a thorn in his side, but there is little that he can do as long as purchasing agents, school superintendents, and the like, continue to give them business.

The criticism of some products sold today is fully justified. Liquid soaps, floor scrubs, and other soaps which contain the absolute minimum of anhydrous soap content, as compared with full value of soap from a reputable house; floor waxes which are very low in carnauba and which run high in paraffin, but withal are mostly water, as compared with a water wax containing eight or ten per cent of carnauba and properly manufactured; disinfectants which test less than one in phenol coefficient, some as low as two-tenths, as compared with the minimum product of the reputable house testing between two and three; insecticides which run as low as ten and fifteen per cent kill by the Peet-Grady Test, and some bed bug fluids which are just plain kerosene, as compared with liquids from reputable houses meeting or exceeding the National Association minimum standard of sixty per cent,—these are just a few of many justified complaints.

Of course, the suppliers of these shoddy products can quote low prices,—and of course, if they will cheat in the composition of their goods, why would they hesitate to lie about quality? And what consumer has the facilities to test the janitor supplies which he buys, or can interpret a laboratory report when and if he secures one? And herein lies the opportunity for the "racketeer" and his salesmen to make all sorts of outlandish and exaggerated claims,—claims which only the poor performance of the material, after it is purchased and

used, can refute. If the situation were analyzed completely, it would be apparent that at the bottom of the opportunity for racketeering lies the ignorance of the buyer and his avidity for low prices, for if the buyer were in a position to identify the reputable product from the fake, he could not be victimized. Neither would he be inclined to accept sales gab and a low price, thus permitting himself to be cheated, in place of a high grade product at a seemingly high price.

In spite of the material which has been published terming janitor supplies a "racket", and of the formula books, and the various and sundry "truth" articles, the buyer of janitor supplies,—even the well-informed buyer, and the chemically-trained buyer, if you will,—has no alternative but to place his faith in one or two reputable suppliers. It is his only course of safety. To him who finds price the most important factor in his purchases, it must be said that he invites being cheated, and that he is responsible for the racketeer being in the business. Underselling all others is characteristic of the racketeer. He can afford to do so and still make a handsome profit, because he simply does not deliver the goods. Too-low prices are a danger sign, and he who has ignored the sign has been burned in the past and will continue to be burned in the future, irrespective of all enlightenment on the "janitor supply racket."

NOT so long ago, the direct accusation of "racket" was made in an address by a business manager for a mid-western school system against the janitor supply business before a national convention of school officials. In his address he quoted U. S. Government Bulletins, formula books, Consumers' Research, and certain private literature of firms selling trade-marked raw materials for sanitary products. He also poked fun at disinfectants, cleaners, deodorants, etc., suggesting that "smello", "stinkene", "bunko", "scratchite", should be added to the list of trade names. He told about the glib statements of salesmen, their extravagant claims, their pseudo-scientific explanations, and "their silly sounding names of identification." He also criticized the "unreasonable prices" asked for branded products which "really are made up of simple and cheap ingredients that should permit the sale at more reasonable prices."

This address was called to the attention of W. B. Eddy, president of the National Association of Insecticide & Disinfectant Manufacturers. Mr. Eddy undertook to answer the charges of the school official by submitting to *The School Executive*, in which the address was published, a statement of the sanitary supply manufacturer's side of the case. In his answer, he stated in part:

"The address of H. H. Linn on 'The Janitor Supply Racket' has just been called to my attention. As president of the National Association of Insecticide & Disinfectant Manufacturers, I feel that a reply is called for, even at this late date, in an effort to undo such damage

as may have been done to the legitimate and reputable manufacturer of disinfectants, insecticides, liquid soaps, and allied sanitary products."

Mr. Linn makes the common mistake of generalizing that a few racketeers characterize an entire industry, that the operations of a few high powered, untruthful salesmen typify the activities of all firms in the field. He questions the value of insecticides, cleaning materials, floor finishes, disinfectants, and liquid soap, quoting as his authorities the journal of the American Medical Association, an assortment of Federal Bureau pamphlets, Chase and Schlink's, "Your Moneys Worth", several "popular" formula books, and Consumers' Research. The first two of these authorities command the respect of the scientific minded, with the qualification that medical opinion, including that of members of the Medical Association, does not always fully endorse the pronouncement of the "journal". Regarding U. S. Bureaus, more later.

The article contains its own answer to the charges against the janitors supply industry. He charges (1) that unreasonable prices are often asked for trade products that are made up of cheap simple materials, and (2) that misleading claims are made with regard to such products. Then he goes on to give formulas, cheap and simple, for making the products. Let any school man make up some floor oil from paraffin oil, some wax or scrubbing compound from those formulas, and use the materials produced. The results will turn the user back to reliable manufacturers for his purchases.

It is a common error of some school and industrial purchasing agents to combine chemical knowledge with bargaining power to buy janitors supplies at the cheapest possible prices. This error makes the buyer easy prey for the unscrupulous salesman, frequently representing, not a manufacturer, but a jobber or reseller, parading as a manufacturer. If the buyer will not pay a fair price for a reliable disinfectant, honestly made and honestly represented, he will be able to chisel on the price from other sources and get something "just as good" or "better", for less money. What he does not know and cannot easily discover is that he has bought something reduced in value, carrying an abnormal profit to the seller. It should not be inferred that all resellers of janitor's supplies are tricky. Most of them sell products clearly labelled with the manufacturer's name and efficiency guarantee. They ask a fair and reasonable price for their merchandise and are able to back it up with proof of value.

If Mr. Linn or others want reliable information about standards and specifications on insecticides and disinfectants, they may communicate with the Food and Drug Administration of the U. S. Department of Agriculture at Washington, or with the New York office of the National Association of Insecticide and Disinfectant Manufacturers at 122 E. 42nd St., New York City. The latter organization, embracing in its membership prac-

tically all the leading manufacturers of the industry, has been in active operation for the past 22 years. During that time it has cooperated closely with the Federal Insecticide and Fungicide Board, and more recently with the Food and Drug Administration of the U. S. Department of Agriculture. That work has covered the entire field of testing for efficiency, establishments of standards and guarantees. The combined laboratories and scientific staffs of those manufacturers are continuously collaborating with members of the U. S. Department to develop better methods of testing, the most accurate and dependable standards of comparison, the correct labeling and guaranteeing of the properties of insecticides, antisepsics, and disinfectants. Two members of the Board of Governors of the Association were formerly in Federal service in the same field, and one active Federal insecticide expert is now serving on the Association Insecticide Testing Committee.

When Mr. Linn degrades all disinfectants with the "chuckle" about rain water, and all insecticides as mixtures of sodium fluoride, borax, flour, cocoa, etc., he generalizes on the basis of the small minority of unethical sellers and attacks an industry that knows its business and is capable of proving the value of its products.

NO Association can drive the "shysters" out of an industry as long as buyers keep them in business by placing orders at low prices as a result of pseudo-scientific sales talk. Any school man who doubts the reliability of his sources of supply has a ready remedy at hand. Let him adopt specifications of a rigid result-producing character. In disinfectants, it will be based not on formulae, but on proven germicidal power, guaranteed by the U. S. Food and Drug Administration method of testing. In insecticides, it will be based not on formulae, but on the Peet-Grady test, now in general use in governmental and industrial purchasing work. Doubtless the other manufacturers questioned in Mr. Linn's article have similar physical standards and specifications by which their goods can be bought on a basis of proven results. To buy these things by telling the maker what chemicals to use and how cheap to sell them is like a sick man calling a medical expert and telling him what simple cheap chemicals to use in his cure. This practice might accidentally succeed occasionally, but it would certainly boom the mortician's business in the long run.

TO be specific in answering some of Mr. Linn's statements, I want to point out that in the trade brands of reputable manufacturers, even at several times the cost of any material in bulk, the buyer is purchasing not merely the material, but the benefit of many years of research and experience by the supplier. In the case of trisodium phosphate, Mr. Linn recommends its use for washing and scrubbing paint, furniture, floors, etc. Apparently, he does not realize that the promiscuous

use of this product for these purposes can do many more times the damage to furnishings, floor coverings, etc. than any saving in purchase price over a period of years. A reputable manufacturer will recommend the proper oil soap or scrub soap for the purpose, higher in price perhaps, but withal cheaper in the long run because of the damage it *will not do*. Of course, a school can purchase in bulk nitre cake or caustic soda with aluminum filings for toilet cleaning and drain opening, but how can these materials be handled, dispensed, stored, etc. in such form with safety? They are products not to be trifled with by any school janitor. And as to the statement of Mr. Linn that these materials are unnecessary,—experience has proved him to be altogether wrong.

Now when Mr. Linn goes into the subject of liquid soaps, floor waxes, floor seals, etc., he really does become very, very impractical. Of course, there are formulas for these products,—dozens of them, available to anybody who wants them. But what does a formula mean in these cases? Absolutely nothing. The technique of manufacture, the equipment required, exact chemical control,—does Mr. Linn believe that these can be secured with a "washtub and the kitchen stove"?

I know a manufacturer who gives every customer who wants the information the exact chemical composition of all his soaps, his waxes and polishes. And this same manufacturer states that the greatest problem in manufacturing his liquid soap is to finish the soap with a minimum of free alkalinity and of correct consistency. There are liquid soaps and liquid soaps. The poor do not look a great deal unlike the good. The raw materials may cost the same, or their cost may vary widely. In any two soaps, there may be a world of difference not apparent to the casual observer. One may command what looks like an excessive price, and be worth it, while the other may sell for what looks like a low price, and not be worth it.

The comments of Mr. Linn on floor waxes and floor seals are,—If I must say so,—ridiculous. He gives formulas and directions for making a home-made water emulsion wax,—and they says: ". . . it may be used on rubber or asphalt floors without deteriorating these substances." Sorry, Mr. Linn,—not on our rubber floor,—it costs too much! He also states that water wax ". . . is little more than carnauba wax emulsified in water." Quite true,—in fact, very true in part,—and a diamond is merely hardened carbon,—simple when mentioned off-hand. And he also mentions the name of a branded emulsifying agent, with which products as a class, floor wax manufacturers have had all kinds of difficulties, and which have been notoriously unsuccessful. And as for floor seals, irrespective of the variations in quotations which he mentions,—we must also state that there are floor seals and floor seals. Quite obviously there are a number of things about commercial floor products with which Mr. Linn is not acquainted. We fear he has been influenced too much by the publishings of these so-called consumer "pro-

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Fly Spray Labels

A N official statement regarding the labelling of pyrethrum fly sprays has been issued by Dr. C. C. McDonnell, Chief, Insecticide Division, Food & Drug Administration. This notice to manufacturers of fly sprays outlines the facts which should be carried on labels, and indicates the attitude of the Government toward various label claims. It states:

"Household fly sprays are subject to the provisions of the Federal Insecticide Act if shipped in interstate commerce, imported into or exported from the United States, or marketed in the District of Columbia or the Territories. This Act requires that the labeling of any article within its purview shall not be false or misleading in any particular.

Composition of the Sprays. The mineral oil-pyrethrum fly sprays are extracts of pyrethrum in a carrier of mineral oil similar to kerosene and usually contain some perfume. They may be made either by direct extraction of the pyrethrum with the mineral oil or by mixing a concentrated commercial pyrethrum extract with the mineral oil. As a general rule the active ingredients from one pound of a pyrethrum (containing 0.9 per cent or more of pyrethrins) in one gallon of a suitable oil will be sufficient for an effective spray. The mineral oil used should not be too light (low boiling) since preparations made with such an oil have been found to be less effective.

Insecticidal Uses. While these products are commonly referred to as 'fly sprays' they are often recommended for use against a number of other household insects, as for example, mosquitoes, roaches (water bugs), bed bugs, ants and clothes moths. They are contact sprays, that is, in order to be effective they must be applied in such a manner as to hit the insects to be killed. Since the habits and life cycles of different insects vary the directions must in each case be adapted to the particular varieties of insects to be controlled, as for example:

For Flies and Mosquitoes. The directions should provide for closing all doors and windows and thoroughly spraying the material in all parts of the room, particularly toward the ceiling, filling the room with a fine mist. The room should be left closed for 10 to 15 minutes, and the fallen insects then swept up and destroyed. This latter precaution is necessary because some of them will be only paralyzed and will later recover. Preparations of this type applied to the face and hands have some effect for a short period in repelling mosquitoes.

For Ants, Roaches and Bed Bugs. The product should be sprayed thoroughly with force into all parts of the room, paying special attention to cracks and crevices and hitting as many of the insects as possible. For the control of bed bugs the bed, all tufts and seams in the mattress

and all places in the room where the bugs may hide should be thoroughly sprayed. Directions should be given for repeating the treatment as often as may be necessary.

For Clothes Moths. The directions should provide for first cleaning all articles to be protected followed by a thorough spraying, paying particular attention to the seams and folds. The interior of all containers should also be thoroughly sprayed. Unless the articles are to be stored immediately after treatment in moth-tight containers, directions should be given for repeating the sprayings at least once a month. Preparations of this type should not be recommended for use on upholstered furniture except where explicit directions are given for opening up the upholstery and heavily spraying or saturating the interior fabric, as well as the outside surfaces, and repeating the treatment when necessary.

Unwarranted Claims. These preparations cannot be relied upon to repel mosquitoes when used in the open such as on the porch or about camps. They are not effective against *all* household insects and claims of 'extermination,' the abbreviation 'etc.' and statements such as 'all other insects,' 'all crawling insects' and 'all flying insects' are unwarranted and should not be made. These sprays cannot be relied upon to control any insect that cannot be reached by the spray. This applies also to the eggs, which are often placed where they are inaccessible.

Products of this type are injurious under certain conditions to both man and animals. Therefore their labels must not bear such unqualified claims as 'non-poisonous,' 'non-injurious,' or 'harmless to man and animals.'

They are of no value in disinfecting and will not prevent diseases.

Inflammability. Kerosene is, of course, inflammable and fly sprays containing it should not be sprayed in the presence of open flames. A warning statement on the label is desirable.

Deterioration. Mineral oil-pyrethrum sprays, if exposed too long to the light of the sun in ordinary glass bottles, may lose much of their efficiency due to the decomposition of the active ingredients. It has also been reported that deterioration may occur due to decomposition of the pyrethrins through contact with the solder or lining of the can when packed or stored for considerable periods of time in metal cans.

Ingredient Statement. The Insecticide Act requires that any preparation containing an inert ingredient must bear on its label a statement of the name and percentage amount of each and every such inert ingredient and the fact that they are inert, or, in lieu of this, a statement of the name and percentage amount of each and every

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Water Emulsion Waxes

The preparation of rubless wax finishes, and a study of emulsifiers, water-resistance, specifications, and testing finished products.

By CHARLES S. GLICKMAN

THE preparation and utilization of liquid finishes capable of yielding a high gloss upon evaporation, without the aid of mechanical buffing, was one of the earliest problems in the leather industry. The wide application of a variety of well known products ranging from shellac to casein solutions (including the egg-white varnish of the bookbinder) has fairly well satisfied every requirement in this highly specialized field.

More recently, the construction and subsequent maintenance of large floor areas covered with linoleum, cement and other artificial surfacing materials has brought about a new ramification of the old problem of glossy-drying finishes, namely, an increasing demand for rubless floor finishes prepared in an aqueous vehicle. The reasons for this combination are obvious, viz., the elimination of the high labor cost incidental to the production of a highly polished surface utilizing an originally dull drying material, the advantages of rapid evaporation, lack of odor, cheapness, fireproofness, and finally the unavoidable use of a material having the property of increasing in gloss with continued wear.

The usual secrecy which surrounds colloidal preparations in the commercial field has long masked the essential simplicity of this type of product. The experimental details, formulæ, and discussion which follow may serve as a slight contribution to the meagre literature at present available on the subject of industrial emulsions and suspensions. With this in mind, the experimental and production methods described herein, have been restricted to the more simple types, and no deliberate attempt made to duplicate the exact processes employed in the preparation of the various and numerous commercial brands now on the market. It may however be stated that the methods and formulæ described have been gleaned from various sources during the course of five years' research work. Some of them have been and are in production today.

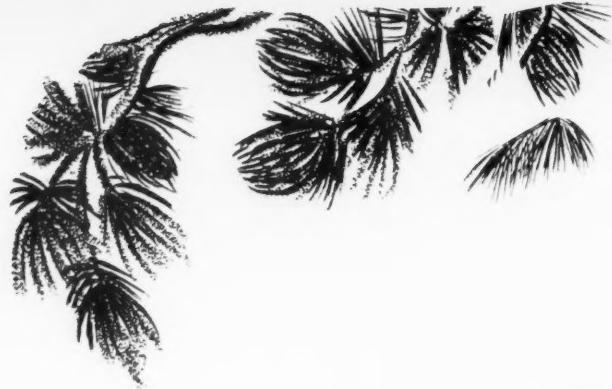
In the course of preparation of a stable suspension of wax in an aqueous medium, it is well to remember that three qualifications must be met: first, a wax or wax substitute concentration great enough to give a satisfactory luster must be present; secondly, the emulsifying agent must be sufficient in quantity to permit emulsification and yet not cause gelling; and thirdly, an extremely fine state of subdivision or high degree of dispersion

is essential for the production of an unbuffed sheen. This last effect will be obtained only on condition that the particle size will be such as permits the necessary close packing of the dispersed phase to take place during the drying stage. If the particles are small enough, they will arrange themselves during deposition in a smooth layer closely approaching a surface condition comparable with the original wax and relatively free from the irregularities which are the cause of multiple reflections and consequent loss of luster.

An example from the field of classical colloid chemistry which very closely parallels this condition is that of the Carey Lea silver sols. These silver suspensions are characterized by their ability to deposit upon evaporation smooth metallic films of high luster. Since the metallic deposits can be repeated with ease, the silver must retain its fine state of subdivision even down to complete desiccation. This feature makes possible the uniform close packing so necessary in the formation of a deposit having efficient light reflecting power. At the same time, it should be remembered that the gloss produced by these rubless waxes never quite attains the quality of the fine finishes obtainable with high grade lacquers, varnishes, or hand rubbed finishes. It is this difference in gloss or light reflecting power that causes most if not all of these rubless waxes preparations to appear relatively dull when placed upon very highly polished surfaces.

The principle use of these wax finishes is at present restricted to relatively matte surfaces such as have been mentioned in a previous paragraph. These last, in almost every case, have a certain degree of porosity, and probably aid in the general close-packing effect of the wax particles by absorbing rapidly a large portion of the continuous phase,—the aqueous suspending medium.

Needless to say, the attainment and maintenance of the necessary state of subdivision is the primary problem in the preparation of this type of colloidal suspension. Of course, the further problems of preventing gel formation and of giving the final product some degree of water resistance are also important. Before describing the two main methods of preparation, it might be best to list the various types of materials that can be used in the manufacture of these rubless wax polishes. With reference to the following table it should be noticed however that the choice of materials to be used in formulation



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depends upon the process used, the equipment available and the final cost of the product to be manufactured.

Table 1

Emulsifiers

Triethanolamine	Soap chips, etc.
Soda lye	Linoleic acid
Soda ash	Oleic acid
Borax	Stearic acid
Ammonium Hydroxide	Castor oil
Potash lye	Abietic acid
<i>Dispersible Material</i>	
Carnauba wax	Beeswax
Paraffin wax	Candelilla wax
Bleached dewaxed shellac	Gums and natural resins
Methyl Abietate	Synthetic resins
Rosin	

From Table 1, the manufacturer can observe that the emulsifying agent or soap is generally a synthetic product formed by the inter-reaction of a fatty acid and an alkali. In the general run of manufacturing, the best type of soap to work with is of this nature as the degree of alkalinity can be controlled for reasons to be discussed later under the heading of "water-resistance." The second type of emulsifier that can be used is of the commercial soap chip type. This is a standard industrial item and in using this material it is best to take as samples various products from various firms. The reason for this is the difference which exists between individual kinds as regards the amount of free alkali and free fatty acid. Generally, this type of material usually contains from 10 to 30 per cent of water.

As will be observed from the table listing various types of formulae and the empirical formula stated in particular, the emulsifying agent should approximate 30 per cent of the weight of the material to be dispersed. It is important that this figure be remembered when formulating products of this type, and if possible the amount of emulsifier may be reduced to lessen the possibility of repeptization or water-resistance failure. If the amount of emulsifying agent is reduced to too low an amount, then there is a possibility of gelling or hardening in the container. It is for this same reason that ammonium hydroxide is to be preferred in place of the other alkalies listed in Table 1 as its volatility will aid appreciably in reducing the amount of soluble material present in the dried film. The presence of a large amount of water soluble material in the dried film will cause a marked failure in water-resistance.

The materials listed in the above table as dispersable and other than rosin and carnauba wax may be utilized to some extent to provide additional water-resistance and gloss. Methyl abietate in small amounts if incorporated with the wax prior to the addition of the emulsifying agent may act in this manner. Certain of the gums, resins, etc., may also be employed for the same purpose. Contrary to public belief, the addition of a material such as shellac is not added to the finished wax dispersion for purposes of reducing the amount of slipperiness but mainly for the purpose of enhancing the gloss of the final product. It should, when added, be in the form of a two-pound cut as stated in Formula K, Table 2, and mixed

with either the cold wax dispersion or the warm mixture, —never when the wax solution is hot.

Emulsifiers and Water-Resistance

SINCE a positive water-resistance is a much desired yet rarely met quality in this type of product, some discussion of the means whereby this end may be achieved will undoubtedly be of interest to the formulator. The fact that the emulsifying agent used in the preparation of the wax suspension acts as a protective colloid and is supposed to form a "coat" around each individual particle of wax or other dispersed material, thereby preventing it from coalescing with its neighboring individual particles, must be kept in mind. It will therefore easily be understood that if this "coat" of emulsifying agent is readily soluble in water, the contact of the latter with the dried film will result in re-emulsification and consequent whitening and spotting.

There are several ways of combating this difficulty which is mainly one of using a soap or protective colloid which is water soluble at the time of emulsification and which becomes water insoluble after a short period of time after application. However, it can be similarly expected that if this can occur without making it necessary for the soap proper to decompose, the same end will be served. With reference to the first example, an emulsifier such as triethanolamine oleate or linoleate can almost never result in the production of a markedly water-resistant film no matter what the dispersed material is (it being enclosed in the former) since the soap is easily soluble in water at all times and since the latter cannot decompose in a relatively short time into its components of triethanolamine and free fatty acid. Some water resistance may be acquired by reducing the amount of soap present but the omnipresent danger of gel formation must at all times be taken into consideration. This latter phenomenon excluding the possible effects of temperature variations is generally due to an insufficient amount of protective colloid or soap.

There is good reason to believe that the use of ammonium soaps in place of the corresponding triethanolamine soaps may accomplish the desired result since the relative vapor tensions of ammonium hydroxide (8.4585) and triethanolamine (less than .1) at approximate room temperature of 20 degrees C. differ by more than 80 per cent. Therefore the possibility that ammonium soap will much more readily decompose into its components before the corresponding soap of triethanolamine is that much greater. All of which may result in the presence in the final dried film of less water soluble material in the case of the ammonium soap as compared with the other type. What is of probably greater importance to both the manufacturer and his sales manager is that the use of ammonium soaps results in both a reduction in cost and a sales point, inasmuch as the odor of ammonia however slight is generally believed in the household to be one of cleanliness.



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The final consideration to be suggested in the improvement of the water-resistance of a product such as we are discussing is the possible use of an emulsifying agent such as glycerol monostearate, which while water dispersable or soluble at the operating temperature range reached during the formation of this product is relatively water-insoluble at room temperatures. This product will not add much to the cost of the finished product as compared with the use of triethanolamine compounds and has the additional factor in its favor that water dispersions made with this product have a pH value on the acid side (about 6.8 or 7). Thus it may be possible to produce a wax product that will be on the acid side.

Formulae and Specifications

ALL carnauba wax referred to in the following formulae is meant to be of the No. 2 N. C. grade, all shellac of the dewaxed and bleached type and all oleic acid of a straw color. Ammonia is of 26 degree Be., and all other products of technical grade.

Table 2

A. Empirical Formula

Carnauba wax	10-15 lbs.
Emulsifier	3-5 lbs.
Water	80-85 lbs.

Method: Either wax to water or vice versa.

B. Triethanolamine Oleate Base (with no shellac added)

Carnauba wax	200 lbs.
Triethanolamine	3 gallons 40 oz. (liq.)
Oleic acid	3 gallons 6 oz. (liq.)
Borax	20 lbs.
Water	180 gallons

Method: Wax to water—(A)
% Wax: 11½%
% Soap: 3%

C. Triethanolamine Oleate Base (with shellac added)

Carnauba wax	91 lbs.
Triethanolamine	15 lbs. and 6 oz. (wgt.)
Oleic acid	10 lbs. and 6 oz. (wgt.)
Borax	7 lbs.
Water .....	.82½ gallons
Shellac	15 lbs.
Ammonia	2¼ lbs.

Method: Water to wax (BB)
% Wax: 10½%
% Soap 3½%

D. Triethanolamine Oleate Base (with Castor Oil)

Carnauba wax	396 lbs.
Oleic acid	6 gallons
Triethanolamine	7 gallons
Borax	50 lbs.
Castor oil (Tech.)	3 gallons
Water	400 gallons

Method: Water to wax (BB)
% Wax 10½%
% Soap: 2¾% (Castor oil excluded)

E. Potassium Oleate Base (with shellac added)

Carnauba wax	55 lbs.
Potassium oleate soap	14 lbs.
Water	490 lbs.
Shellac Sol. (2 lb. cut)	3 gallons

Method: Wax to water (A)
% Wax: 11%
% Soap: 3¾%

F. Triethanolamine Linoleate Base (no shellac)

Carnauba wax	10 lbs.
Triethanolamine	1.7 lbs.
Linoleic acid	1.3 lbs.
Ammonia .....	.5 lb.
Water	87 lbs.

Method: Wax to water (A)
% Wax: 10%
% Soap: 3%

G. Carnauba Wax and Paraffin (no shellac)

Carnauba wax	6 lbs.
Paraffin wax	2 lbs.
Triethanolamine	1.7 lbs.
Linoleic acid	1.3 lbs.
Ammonia	1. lb.
Water	85 lbs.

Method: Wax to water (A)
% Wax: 8%
% Soap: 3%

H. Ammonium Linoleate Formula (no shellac)

Carnauba wax	30 lbs.
Ammonium Linoleate	10 lbs.
Ammonia	½ lb.
Water	261 lbs.

Method: Wax to water (A)
% Wax: 10%
% Soap: 3%

I. Soap Formula (no shellac)

Carnauba wax	7 lbs.
Rosin	3 lbs.
Soap Chips (commercial grade)	3 lbs.
Water	80 lbs.

Method: Wax to water (AA)
% Wax: 10%
% Soap: 3%

J. U. S. Dept. of Commerce Formula (approximately)

Carnauba wax	72 lbs.
Triethanolamine oleate	20 lbs.
Borax	5.4 lbs.
Shellac	10 lbs.
Water	about 80. gallons

Method: Water to wax (BB)
% Wax: 12%
% Soap: 3½%

K. Shellac Formula (2 Lb. Cut)

Bleached dewaxed shellac	26 lbs.
Borax or ammonia	6¼ lbs.
Water	13 gallons

Note: All figures on percent of soap and percent of wax are approximate to within one per cent.

Note: In the formulation of new products, it should be remembered that rosin cannot be substituted with ease in a formula containing free borax, triethanolamine or ammonium soaps as the presence of these alkalies will tend to saponify the rosin with consequent loss of luster and possible gel formation. Commercial soap chips are generally the best type of emulsifying agent to use in a product where part of the carnauba wax has been substituted by rosin. The same caution holds for the substitution of beeswax in place of carnauba. When using ammonium soaps it is generally best to try and avoid overheating the wax-soap mixture as this will tend to drive off ammonia and possibly make the dispersion of the wax difficult. All new variations should be first based upon the empirical formula stated and tried out in small batches of one gallon or less.

Specifications

A. General Supply Committee, U. S. Treasury Dept., Feb. 3rd, 1933.

1. Total non volatile solids must not be less than 20%.
2. Emulsified solids (excluding the emulsifying agent) must be No. 1 carnauba wax and not less than 15%.
3. The product must be a perfect emulsion and contain no volatile solvents such as naphtha or turpentine.
4. The product when applied should dry evenly and easily.
5. The product should dry in not more than 30 minutes.



*Synthetic
Insecticide
Concentrate*

ACTUALLY AND ABSOLUTELY KILLS BUGS

LETHANE 384 appeals to manufacturers because it is standard. A 100% American product, it is not affected in price by fluctuating foreign currencies or other uncontrollable factors. A scientific, synthetic product, it does not fluctuate in strength and quality.

Lethane 384 sprays appeal to housewives and exterminators because of their greater killing power. Note further the fact that these sprays are non-staining, colorless, contain no sediment and do not deteriorate with age—all are added sales advantages.

*Use Lethane 384 for Household, Exterminating,
Cattle, and Mill Sprays*

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6. There should be no re-emulsification after application.
7. The liquid must be neutral.
8. The dried film must be able to withstand water for a minimum of two hours without marked effect.
9. The film must be colorless and transparent.
10. The film should not remain tacky, have objectionable odor, crack, peel or show overlap.
11. It should give a high lasting gloss when diluted with water.
12. It should have a coverage of 2500 square feet per gallon.

Note: Judging from the exacting requirements of the above specifications and bearing in mind the characteristics of the products on the market as a whole, it can be seen that these specifications are listed above only for their historical value.

B. Rubber Flooring Manufacturers Division of the Rubber Manufacturers' Association.

1. The product shall be composed of carnauba wax with some beeswax and shellac.
2. It shall contain no rosin, free caustic alkali, copper, manganese, free oil or volatile solvents.

Note: The above specifications while not severe in their terms are not representative of the price that the ultimate consumer is willing to pay for the product, as his main criterion is one of price.

(To be Concluded)

JANITOR SUPPLIES,—A RACKET?

(From Page 94)

protective" organizations. (Dues \$5.00 per year, and nice rackets as rackets go.)

I have examined the three formula books mentioned as a source of information by Mr. Linn. Let me tell him that these three books are quite generally known to manufacturers of sanitary and janitor supplies, and that they are notorious for the "formulas" which they give, the majority of which were outmoded years ago. (I could give him a volume of evidence in this direction.) I can say with complete assurance that these books are not only of little practical value to him who would manufacture modern janitor supplies, but that they are dangerous volumes in the hands of those who are not informed technically. You may be interested to know that many a good laugh has been had among manufacturers over formulas which they contain.

Now as to advertising statements and claims of salesmen,—it is here that Mr. Linn comes much closer to the facts. I must admit that there are "shysters" in the janitor supply business, ordinary crooks and chiselers, firms which consistently and purposely misrepresent their goods, and which permit their salesmen to say or do anything in order to sell their wares. However, if buyers did not purchase from these firms, how long would they stay in business? If school purchasing agents, among others, were not influenced by their wild claims, their pseudo-chemical nonsense, their apparent low prices, their condemnation of competitive products,—how could they exist? They have long been a thorn in the side of the reputable manufacturer,—but he is not responsible for their existence.

Reputable firms do not exaggerate grossly in their advertising, or are they untruthful in their statements. The prices of reputable houses are not grossly excessive.

as Mr. Linn states. Considering everything, they are fully justified,—as many a rubber or composition flooring ruined by a cheap, all-purpose cleanser, or a home-made compound will bear witness. Are they more excessive than a price of 75 cents for a prescription containing two cents worth of mixed bromides? But would you fill the doctor's prescription yourself in order to get a lower price? Or would you rather pay for the druggist's knowledge and experience?

I want to repeat that the reputable manufacturer of sanitary and janitor supplies can and does render a service to institutions, schools, and industrial establishments for which he is not overpaid. If there are "shysters" in the ranks, it is the buyer who keeps them there by purchasing from them. A bad-acting minority should not damn the industry, or place the "racket" brand upon it.

METAL POLISHES

(From Page 30)

idea they are simply hit or miss. Such is not the case for each is now or has been offered commercially.

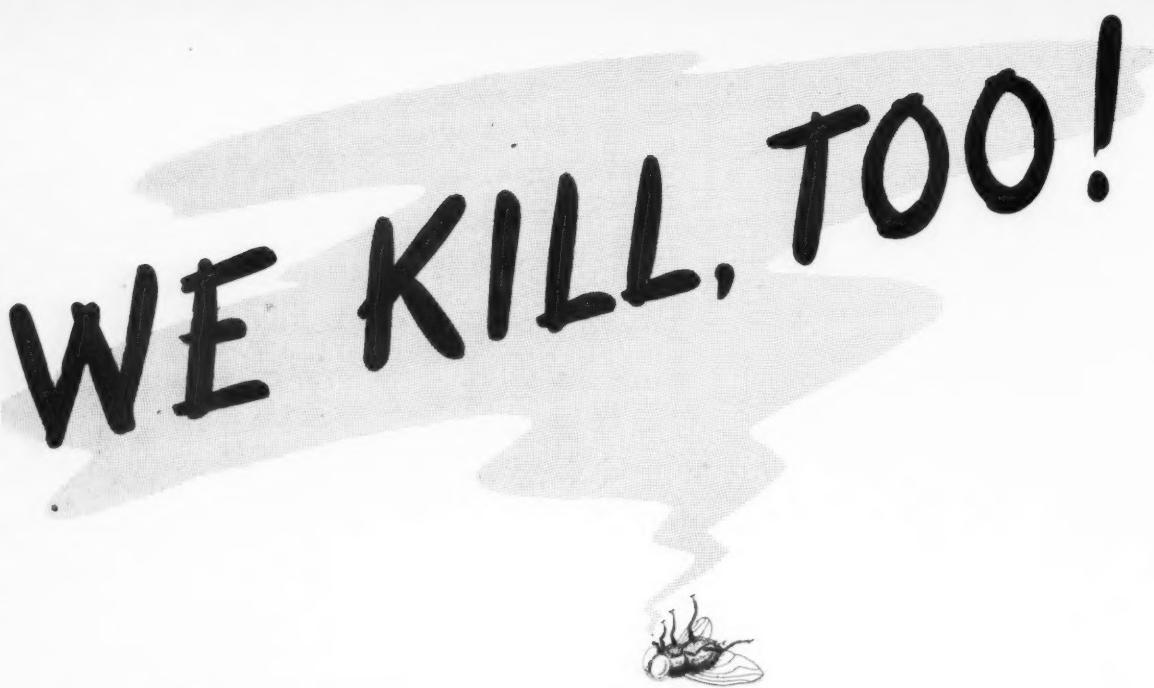
In developmental work or formula adjustments one thought should be kept in mind. Progress will be slow unless only one variable is introduced at a time. To illustrate take the formula second above. It is quite like an algebraic equation in that two variables require two equations. If it is desired to increase the consistency by raising the oleic acid and lower the cost by decreasing the ortho-dichlorbenzene content, two separate experimental batches must be made. In fact, to get the desired consistency a range of oleic acid and ammonia should be made, raising and lowering the concentration in increments of say one-half or one per cent.

Silver Polish

PHARMACEUTICAL houses sense their responsibility in manufacturing remedies upon which the medical profession stakes its reputation and upon which the layman relies for maintenance of or restoration to health. Reliable manufacturers of silver polish should feel their responsibility no less keenly. What is dearer to the average home maker's heart than her silver, flat and hollowware, even though it be only plate? And the average institution can usually ill afford to replace silver damaged by inferior polish.

Yet some of the silver polish offered cannot help but hasten the day of replacement or unsightliness with the plate worn through, due to needless excessive abrasiveness. In the laboratory of this writer's employer is an elaborate specially designed and built power-driven abrasive testing machine that handles four samples at a time. Not only can finished polishes be tested but various abrasives separately and in combination can also be evaluated. The amount of wear on silver or any other metal can be accurately determined under controlled conditions and with the aid of the microscope any scratching or gouging tendencies can be gauged.

WE KILL, TOO!



BUT not insects; that's your job! Our "killings" are confined to those objectionable odors which characterize fly sprays, insecticides and other technical products—odors which definitely retard sales. These we eliminate completely—at trifling cost and without slightest impairment of the product's efficiency.

We'd like to show you how effectively this can be accomplished—how, by the choice of the right deodorizing perfume, you can so improve this characteristic of your product that even the most fastidious will welcome it in their homes. Simply write us, explaining your problem and we'll send you test samples of materials and specific recommendations for their use—suggestions which have already helped other manufacturers toward larger markets and more substantial profits.

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Now there are perhaps other such machines in use that have not come under observation. A few of the polishes investigated indicate either carelessness, ignorance or indifference in their manufacture. However, a large number are also excellent for the purpose for which manufactured.

The base of silver polishes is usually soap, hard soap for paste and soft ones, occasionally ammoniacal for liquids. The former are more popular and the titre runs from 39.3 degrees C. to 42.0 degrees C. and higher. The latter indicates straight tallow soap. The soap content of four paste polishes was found to vary from 4.32 per cent to 10.37 per cent. To lessen stringiness in use, alkaline salts had been added.

The abrasives used include precipitated chalk and whiting, fullers earth, jeweler's rouge and diatomaceous earth. Chalk is dangerous for two reasons. First there is a tendency toward double decomposition with the soap. Second, all chalk contains more or less silica, and even though it may run less than one per cent, there is a certain amount of scratching.

Analyses of four popular polishes indicate an abrasive content of 15.01, 15.30, 18.90, and 19.05 per cent respectively. In each instance microscopic examination indicated straight diatomaceous earth. There are, however, diatomaceous earths and diatomaceous earths—both natural and calcined.

Some diatoms are tougher than others. If they are too fragile the polishing operation becomes too slow. All diatoms, however, are soft enough to break under the pressure exerted in polishing into angular and needle like fragments that will not injure the relatively soft precious metals. One authority claims that fresh water types are usually better than those of marine origin. The concern, however, in choosing the material is more particularly one of getting uniform particle size free from grit, coarse hard particles and extraneous material.

That abrasiveness and scratching tendency varies even though the abrasive is diatomaceous earth exclusively is evinced by the abrasion results of the four polishes. Considered as whole numbers the figures obtained ran 342, 378, 392, and 405. The first gave the finest polish and the last unquestionably wore the coin silver test strips needlessly.

A safe specification for diatomaceous earth is: It shall be a calcined grade of earth which has been milled to a high degree of fineness so that practically 100 per cent will pass 325 mesh. It shall be an air-floated product so that it is free from any coarse or gritty particles. If the polish is to be tinted the color is unimportant, whereas if it is to go to market uncolored, the earth should be white when dry and only slightly off white when wetted.

Other mild abrasives that appear worthy of trial in certain formulations are calcium sulphate, titanium dioxide, tricalcium phosphate, calcium pyro-phosphate, and the double salt of pyro calcium phosphate and calcium

sulphate, known as "Pyran." All are in about the same cost range with high grade satisfactory diatomaceous earth, which incidentally is not cheap. Since they are all definite chemical compounds, no trouble with impurities and extraneous materials will be encountered.

If color is added it is usually pink, although sometimes green is used. It is a water soluble color, of course, and the usual soap colors work admirably. The addition of color improves the appearance of most formulations, particularly if the abrasive is a dirty gray or yellow when wet down. The only caution is not to over-color and have color spots as has the polish sponsored by one of the best names among silversmiths.

The two most widely sold polishes are scented with safrol. There is no good reason why any of the other good cheap odors should not meet equally good consumer acceptance. The way many others have standardized on safrol for their odor makes the situation almost ludicrous. Pine oil used in amounts up to three per cent imparts a refreshing odor and in certain formulations actually improves the polish.

Organic acids including tartaric, citric, and more particularly oxalic have long been advocated for use in silver polish. In some formulations at least their presence or absence is not observable insofar as cleansing action on the metal oxide and sulphide is concerned. In other words, as tarnish removers the organic acids appear overrated.

Glycerine may be incorporated for physical reasons primarily. It retards drying out in the container and even though it is a tight package as manufactured and packed, users are prone to be careless in resealing and the intervals between use are normally quite long.

As a starting point in formulation, the mean of the analytical figures of the four pastes may be taken

Unfilled Soap Chips	8.
Diatomaceous Earth	17.
Alkaline Salt	0.25
Odor	q.s.
Color (if desired)	q.s.
Glycerine (if desired)	q.s.
Water	q.s.
to make	100

Variations will include increasing the soap content for lowered titre, softer soap, and decreasing it if the abrasive used is unusually highly absorbent. If the highly absorbent diatomaceous earth is replaced in whole or in part with other abrasives with little or no absorbent properties, the soap content will have to be increased and possibly the abrasive figure increased as well.

In conclusion, this discussion may appear to be unduly critical. That it is somewhat critical is admitted, but it is hoped it will be reflected in some constructive development work. There is room for it.

MEMBER



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FLY SPRAY LABELS

(From Page 95)

active ingredient and the total percentage of the inert ingredients. Preparations of the type described above ordinarily consist entirely of active ingredients and no statement regarding the ingredients is required to appear on the label. However, such claims as 'Active Ingredients 100 per cent' and 'Contains no inert ingredients,' are unobjectionable provided, of course, they are true. The statement '100 per cent active' is objectionable as it may be taken to imply that the product is 100 per cent effective."

For the microchemical determination of the unsaturation of oils by means of bromine vapors, place a few milligrams of the oil sample in a small crystallizing dish about 1 cm. in diameter. Put several of these dishes, together with one containing a few drops of liquid bromine, under an inverted Petri dish, which is covered on the outside with black paper. The bromination is completed in a half hour. To remove excess bromine, place the dishes on a narrow glass plate slid into a test tube, kept in horizontal position in a constant-temperature steam bath, covered from the outside with black paper. Pass a current of nitrogen through the test tube for a half hour, which is sufficient to remove all excess bromine. Determine the gain in weight of the oil and calculate to the iodine value. The results obtained are in good agreement with the Wijs iodine values, except for oils or fatty acids with hydroxyl groups, which give too high values owing to the esterification of the hydroxyl group by the hydrobromic acid formed during the reaction from bromine and traces of water present. One molecule of ricinoleic acid was found to take up 2.4 atoms of bromine after complete bromination requiring two days. J. Boeseken and P. Pols, Jr. *Rec. trav. chim.* 54, 162-6 (1935).

Phenol vapor, produced by dropping phenol on an electrically-heated plate, can be used for general disinfecting. The germicidal action depends on the condensation of the phenol on surfaces of objects in the room being treated. At least 30 minutes are required for complete condensation of the vapor and resulting germicidal effects. Phenol vapor is to be preferred to certain other gaseous disinfectants since it does not injure textile materials or metals, but care must be taken when it is used since mixtures of the vapor and air are inflammable. Harold Silman. *Manufacturing Chemist*, 7, 104 (1936).

Several Indian firms are in the market for extracts of pyrethrum, derris root, and similar insecticides, so that they can put out their own lines of insecticide preparations rather than continue buying finished products from England and the United States. N. G. Chatterji. *Manufacturing Chemist*, 7, 92, (1936).

National Association of Insecticide and Disinfectant Manufacturers



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Active — Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues — \$75.00 per year.

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For further details, communicate with

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SPRAYSENE

The scientific insecticide base
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form—175° F. flash — effective
distillation range.

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When you use Barrett Cresol U.S.P. in a Cresol Compound, you can be sure of the best possible solubility of your compound and that it will contain less than 5% Phenol, thereby falling well within the limitations of the Federal Caustic Poisons Act.

TAR ACID OIL, 10%-75%

These carefully blended oils range in tar acid content from 10% to 75%. They are used in the manufacture of animal dips and disinfectants.

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Ninety-nine per cent and 95% grades of various distillation ranges depending upon requirements.

PHENOL U.S.P.

Pure white crystalline products with minimum melting points of 39.5 and 40° C.

HYDROCARBON OIL

A neutral coal-tar oil for use as a base
for high coefficient disinfectants.

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Approximately 25° C. boiling range.

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Veterans' Insecticide Specification

RECENT criticism of the liquid insecticide specification of the Veterans Administration which was published in SOAP, has brought a statement from John D. Cutter, Director of Supplies for that Administration. His communication states: "We have noted with interest the editorial on page 91 of the February 1936 issue of SOAP, criticizing Veterans Administration specification for liquid insecticide.

"The editor brands the specification as 'utterly ridiculous' and states that there is not a product on the American market which can qualify, but you may be surprised to know that a number of bids were received and all of these bidders agreed to supply material conforming to the specification requirements. It is not believed that a bidder would quote on his product unless he had determined that it would be acceptable under the specification. While it is true that the National Association of Insecticide and Disinfectant Manufacturers has adopted a minimum standard of 60 per cent kill, it is not understood that this percentage of kill is indicative of the best quality of insecticide obtainable. It is natural for manufacturers of cheap products to protest a specification prepared with a view to procuring high quality material but it is believed you will agree that protests of this character have no merit and should not be encouraged. It is an obvious truism that it is easy to find fault and no special talent is needed for the expression of disapproval. If any member of the National Association has any constructive criticism to make of our specification, we shall be glad to receive it and it will be given the consideration it may deserve."

The Editor's Response

The editor answered the letter as follows: "This is in response to your letter commenting on the editorial which appeared in SOAP on

the insecticide specification of the Veterans Administration. In the editorial, we branded your specification 'utterly ridiculous' because it is ridiculous when we consider the circumstances under which it was issued. No commercial product,—and there are more than 1,200 such on the American market,—meets the standard which you have set. If you intended to insure your bureau of getting an unusually high quality product, why stop at 80 per cent? Why not 90 per cent or 100 per cent?

"You state that we may be surprised to know that a number of bids were received and all bidders agreed to supply material in accordance with specifications. We are not in the least surprised. In fact, if you will read the editorial again, you will note that we predicted that you would receive plenty of bids 'as per specifications'. This happens every time,—has happened every time no matter what the specification for the past ten years. The truth of the matter is that the majority of these bidders do not know what they supply and you do not know what you get. Not one in fifty of the suppliers has laboratory facilities to test his insecticide to determine in advance if it actually does meet your specifications. As a matter of fact, we believe that most of them know that they do *not* meet your specifications, but they also know that you have no way of determining this.

"Of course, the National Association standard of 60 per cent minimum kill by the Peet-Grady Test does not represent the best quality insecticide obtainable. The best commercial liquid household insecticide we have ever seen tested around 75 per cent kill, but it did not sell for 39c per gallon. The worst tested 9 per cent. However, these figures were based on *true* Peet-Grady Tests,—not on some so-called 'modified' Peet-Grady method worked out by some 'laboratory' to make a

product look good,—or for the purpose of securing 'laboratory certificates' for hand-picked samples with which to lull buyers to sleep.

"You state that it is 'natural for manufacturers of cheap products to protest a specification prepared with a view to procuring high quality material, but it is believed you will agree that protests of this character have no merit....' In view of the fact that the insecticide award in question was placed by your bureau at something like 39c per gallon, this statement is quite humorous. It reveals your unfamiliarity with household insecticides, their cost, and the character of various firms which manufacture and supply them. If you received any protests at all, we will gamble that you received them from the suppliers of the high quality insecticides. The supplier of cheap products does not protest specifications,—never has in my experience in the industry. It is the really reputable firms who see how impractical your specification is and who want it revised so that they may bid *honestly* with a view actually to supplying you an insecticide which will meet the specification. Cheats do not try to warn you. They quietly take advantage of the loopholes in your purchasing set-up.

"I feel that in issuing a specification calling for 80 per cent kill, no odor and no staining, you force the honest manufacturer to refrain from bidding. The raw material alone in such a product, even at today's low pyrethrum prices, would be well in excess of 40c per gallon, and this does not include freight, containers, manufacturing losses, labor, etc., which would amount to at least another 10c per gallon. If you issued such a specification to help raise the general standard of insecticide quality, you are to be commended. However, the mere fact that you placed the business below even the material cost of such a product indicates that this was not your reason, or else you



High Pressure—Controlled Atomization
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The discharge has a wide range of adjustments, from a forceful, penetrating spray, to fine floating fog, with in-between variations.



No. 43G
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Pressure sprayer with lever control can be operated as continuous sprayer by holding lever down while pumping. Very convenient and efficient.



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A large capacity sprayer of the continuous type.

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Sole Agents

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Clarendon, Penna.

were not fully familiar with what you were doing.

"We are not as inclined to be critical solely of your figure of 80 per cent kill as we are critical of any specification calling for a high calibre insecticide, far above commercial standards, to be supplied through competitive bidding. It is not merely the 80 per cent or the no-odor, or non-staining features to which we object. It is the issuance of this specification in the face of conditions under which insecticides are being supplied to public agencies. Of course an 80 per cent product can be made. So can a 90 per cent product. But you cannot hope to get either on public bid. So why not make it 70 per cent,—which is an extremely effective insecticide in practical use, and encourage all honest and reputable suppliers to bid on something which they know they can supply and will supply?

"We feel that the specification which you have issued and the price at which you have placed the business, invite suppliers to attempt to supply an inferior product. May we suggest that to check this that you submit samples *from every shipment*,—not hand-picked samples from the suppliers,—to three impartial experts, and secure their opinion?

"We do not want you to feel that we are splitting hairs in criticizing your specification editorially. Public buying of insecticides is not well organized. Too much of the insecticide shipped is of low grade. Samples submitted meet the tests; shipments seldom do. Where the specifications are impossible of being met by commercial products, the better manufacturers do not bid, knowing that they have no chance. This too often leaves the business to the scavengers, and the door wide open for cheating. We do not have in mind any specific firm or firms, or do we refer to your recent purchase alone. In fact, we do not even know which firm or firms were awarded the contract.

"Our criticism is wholly sincere and we have no ax to grind. We have at heart the interests of the

reputable insecticide manufacturer which we believe are best served by sensible, workable specifications, and a wide development of testing facilities among large buyers whether they be governmental agencies or commercial organizations."

Specification 95% Kill

Commenting on the controversy over the insecticide specification issued by the Veterans Administration as published in recent issues of SOAP, J. S. Schaul, president of the Maintenance Supply Co., New York, states in a communication:

"We wish to compliment you on your open letter as printed in the April issue of your magazine SOAP. Your answer to the criticism of your criticism of the specifications issued by the Veterans Administration is intelligent and practical. In line with this specification, we find that one of the other departments of the government, namely, The Marine Corps sent out bids for a quantity of insecticide asking among other things for a 95 per cent kill. The responses to this invitation were probably so wild that it was necessary to issue the invitation over again, toning down the requirements to a considerable degree. Somebody evidently gave them to understand that they are asking for the impossible or at least would never get what they asked for."

Polish Waxes

Synthetic waxes for the manufacture of polishes are obtained by cooking fatty oils or saponifying with calcium hydroxide and then mixing with candelilla wax. S. Kamarovsky, Belgian Patent No. 410,633.

Morris Amster Dies

Morris Amster, head of Cummer Products Co., Bedford, Ohio, died of a heart attack April 5 at his home 14307 Shaker Boulevard, Shaker Heights, Cleveland suburb. Mr. Amster was 69 years old, and had lived in Cleveland nearly 50 years.

Tax Pine Disinfectant

Pine oil disinfectant where the label of the package contains any suggestion that it be used on the human body or in the bath, is subject to the excise tax the same as a cosmetic or a toilet soap, according to recent investigations of the Bureau of Internal Revenue. Manufacturers have been notified that all sales of pine disinfectant where the packages have been so labeled are subject to tax and that books will be inspected to determine sales of such products. It is held by the Bureau that any cosmetic claims or suggested uses for any product makes it subject to the excise tax.

Foreign Trade Offers

The following trade opportunities for American concerns have been listed by the U. S. Bureau of Foreign & Domestic Commerce in recent issues of "Commerce Reports." Qualified firms interested in obtaining further details should address the offices of the bureau in Washington, D. C., mentioning the file number of each inquiry:

283—Polishes, Switzerland, Agency; 373 — Insecticides, Japan, Agency; 383—Wall paper cleaner, Canada, Purchase.

Janitor Supply House Grows

A growing Kansas City company in the insecticide and janitor supplies line is the Darrow Chemical Co., 603 East Thirty-First Street, Kansas City. The proprietors are W. C. and T. E. Darrow and this company has been engaged in the manufacture of insecticides and allied products for nine years. Eighteen months ago they added a complete line of janitor supplies. They sell their products direct and operate in Iowa, Nebraska, Kansas and Missouri.

Plan "Moth-Surance" Adv.

Chemical Control, Inc., New York, maker of "Moth-Surance", a liquid destroyer of moths and larvae for home use, has appointed Mackay-Spaulding Co. to direct its advertising account. Newspapers will be used.



MANY of the processes employed in the refining of coal tar products have been developed by the Koppers companies. A competent technical staff is constantly at work to introduce further process refinements and to insure the high quality of all Koppers products. The Koppers laboratories are abreast of all new developments in the field of coal tar products. Their services are at your command.

TAR ACIDS CRESOL, U. S. P. PHENOLS CRESYLIC ACID 98% to 100% STRAW COLOR TAR ACID OILS NEUTRAL HYDROCARBON OIL

(For construction and maintenance, Koppers also produces: Roofing, Waterproofing, Dampproofing, Creosote, Tar Base Paints and Coatings, and Tarmac for driveways, roads, pavements, etc.)

KOPPERS PRODUCTS COMPANY KOPPERS BUILDING, PITTSBURGH, PA.

Offices: New York, Boston, Providence, Chicago, Birmingham

Plants:

Birmingham, Ala.; Buffalo, N. Y.; Chicago, Ill.; Follansbee, W. Va.; Fort Wayne, Ind.; Hamilton, O.; Kearny, N. J.; Milwaukee, Wis.; New Haven, Conn.; Providence, R. I.; St. Paul Minn.; St. Louis, Mo.; Swedeland, Pa.; Utica, N. Y.; Youngstown, O.

HUDSON



Who Wouldn't Be Peeved?

The stage is set—guests arriving. A final touch to make sure the room is cleared of summer insects, a dash of fly-spray—then, a drop of oil and a fresh table cloth is soiled! What self-respecting housewife wouldn't be peeved with the whole idea of fly sprays?

It's the sort of thing that doesn't happen with a Hudson Fog Sprayer. It's designed especially for household use—leakproof, with a drip cup at the nozzle to catch overflow and vent to return it to the can. But there's more than that to this little household favorite! It's the perfect vaporizer that turns fly oils into the fine floating mist that really kills without leaving a film on the furniture.



One sure way to keep your customers happy is by supplying them with a Hudson Fog Sprayer when they buy your product. Then you're sure of the application that gets the best results.

Why not write us today?

H. D. HUDSON MFG. CO.
589 E. ILLINOIS ST. CHICAGO, ILL.

Insecticide Meeting June 8-9

THE twenty-third annual mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers will be held at the Edgewater Beach Hotel, Chicago, on Monday and Tuesday, June 8 and 9, according to an announcement from John H. Wright, secretary. The meeting will extend for two days only as in recent years, preceded by a meeting of the Board of Governors on June 7, and a golf tournament on that day. John H. Wright is chairman of the general convention committee with H. W. Hamilton of the White Tar Co., Kearny, N. J., in charge of the program, John Powell of John Powell & Co., New York, in charge of hotel arrangements and finances, and A. L. van Ameringen of van Ameringen-Haebler, Inc., New York, in charge of entertainment and the banquet. General sessions of the meeting will be in charge of W. B. Eddy of Rochester Germicide Co., Rochester, N. Y., president of the Association. Disinfectant sessions will be in charge of H. M. Clark of Dr. Hess & Clark, Inc., Ashland, O., second vice-president, and insecticide sessions in charge of W. G. Griesemer of Black Flag Co., Baltimore, first vice-president.

At a meeting of the Board of Governors, held at the Hotel Commodore, New York, on April 3, final arrangements for the Chicago meeting were made. Most of the meeting time was taken up with a discussion of new insecticide and disinfectant specifications and standards which will be an important subject on the program at Chicago. The subject of an official association laboratory was also taken up. Some time was given over to the discussion of the association's publicity program and publicity subjects. Those who attended the meeting included W. B. Eddy, presiding; W. G. Griesemer, John H. Wright, secretary; J. L. Brenn of Huntington Laboratories, Huntington, Ind.; John Powell, treasurer; H. W.

Hamilton, H. A. Nelson of Chemical Supply Co., Cleveland; R. H. Young of Davies-Young Soap Co., Dayton, O.; Dr. Robert C. White, of Robert C. White Co., Philadelphia; Wallace Thomas, Gulf Refining Co., Pittsburgh, and W. J. Zick, of Stanco, Inc., New York.

Theater Sprays

The problem of revivifying stale air in closed rooms is solved in a simple manner by evaporating mixtures of chemical substances such as menthol and camphor with one or more terpenes such as pinene. For example a large hall may be treated with a mixture containing 90 parts of camphor oil in which 10 parts of menthol have been dissolved. In a theater having 1,500 seats 20 grams of this mixture is sufficient and this amount will not leave a noticeable odor. For small halls a solution of

5 parts of camphor oil and 5 parts of menthol in 90 parts of alcohol is suitable. Evaporation can be brought about by any convenient method. M. Weinberger, British Patent No. 425,309.

W. C. House with Zonite

W. C. House has been appointed advertising manager of Zonite Sales Corporation, New York. He was formerly vice-president of the Alfred P. Zabin advertising agency.

H. S. Hillyard Dies

H. S. Hillyard, president of Hillyard Chemical Co., St. Joseph, Mo., died at his home in St. Joseph recently at the age of sixty-nine.

Dews Co. Leases Office

Samuel C. Dews Co., exterminators, recently leased offices in the Plaza Theatre Bldg., 209 West Forty-Seventh street, Kansas City, Mo.



New style containers adopted by Shell Oil for their stock spray and large size household spray container. Steel pails by Wilson & Bennett of Chicago.

177,256,200 SQUARE FEET OF FLOOR COVERED BY FEDERAL FINISHES DURING 1935

*The Greatest Testimonial
Ever Given Floor Finishes*



*A Type of Finish to
Meet the Exact Requirements of Every
Type of Floor*



*Send for This
Book FREE*

To Distributors and Manufacturers of Soaps, Chemicals, Disinfectants, etc. Tells how to prepare and finish all kinds of floors in schools, institutions, public buildings, etc.

SEND COUPON NOW.

COUPON

FEDERAL VARNISH Co.

Dept. 58—337 S. Peoria St., Chicago, Ill.

Kindly send without cost or obligation your

FLOOR FINISHING & MAINTENANCE MANUAL.

Name _____

Company _____

Address _____

City State.....

FEDERAL VARNISH CO.

BREUER'S TORNADO ELECTRIC SPRAYERS

get you reorders because they are the most efficient and durable insecticide sprayers ever built. Supply your customers with the best.

The New Tornado Model 36

Automatic Time Switch—Volume Air Control

One Gallon Capacity

1-3 H.P. G. E.

Universal Motor

Here is the finest sprayer ever built. Similar to the now widely used Tornado Model 54 and retaining the automatic time switch, volume air control and adjustable nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas formation.

The patented principle of heating and compressing material does the trick. Just the sprayer you need for covering large distances and penetrating with the finest gas every possible source of insect existence.

Get the facts on this sprayer before buying!

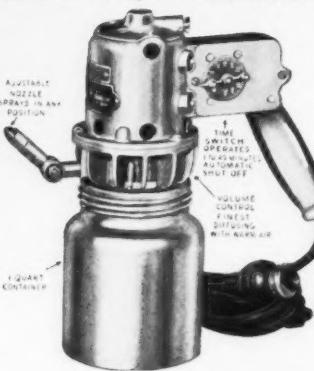


Also most complete line of electric sprayers to meet every spraying problem.

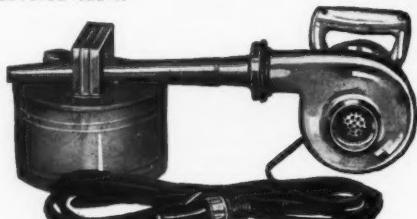
MODEL 54—

1 QT. CAPACITY
It features an automatic time switch set at any point from 1 to 30 minutes — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray.

MODEL 53 same as Model 54 except does not have automatic time switch.



Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. $\frac{1}{6}$ H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20'. $\frac{1}{3}$ H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street

We do not sell insecticides. Our business is manufacturing sprayers.

Patented in U. S. A. and Foreign Countries

NEWS

Peterman Sales Campaign

William Peterman, Inc., New York, will begin a new advertising campaign in May using daily and weekly newspapers and national magazines. The products to be featured are Peterman's "Discovery", "Roach Food" and "Ant Food". A special housecleaning tie-up window display is being offered to dealers.

Expello Uses Premium

Expello Corp., Dover, N. H., has recently been offering to retail druggists a \$5 clock free with every \$12 order on "Expello" moth killer. The special offer was discontinued April 30.

Paul Hayden Dead

Paul Hayden, for the past fifteen years associated with the sales division of the Koppers Products Co., Pittsburgh, and the White Tar Co., Kearny, N. J., a Koppers subsidiary, died in New York on March 23. He was buried from his birthplace at Sayre, Va., on March 26. He is survived by his wife, his mother, and a brother. His work during his association with the Koppers interests was chiefly in the sale of disinfectants, and disinfectant materials.

Hoffman Forms New Concern

G. E. Hoffman, formerly connected with Arwell, Inc., Waukegan, Ill., and Baldwin Laboratories, Saegertown, Pa., has recently organized the A-Queen Products Co. in Chicago to carry on an exterminating and insecticide manufacturing business. Offices are located at 149 Harrison St., Oak Park, Ill.

Discuss Flyspray Labels

The practicability of showing on flyspray labels a definite determination of pyrethrins content was one of the important topics discussed at a meeting in San Francisco, April

6, called by Dr. Alvin J. Cox, chief of the state chemistry division, and attended by leading manufacturers of these products. Dr. Cox appointed a committee of five to study this subject and make a report later which will determine the future course of action. With respect to sprays containing rotenone, a resolution was passed at the meeting requesting the United States Food and Drug Administration and the State department of agriculture to allow the term "Derris and/or Cube Root," in designating the source of rotenone on labels, rather than to specify one or the other root singly.

New Jester Arrives

Mr. and Mrs. M. B. Jester announce the birth of a son, Max, Jr. The new arrival's father is connected with Calumet Refining Company, Chicago manufacturers of fly spray and industrial petroleum products.

Poole Returns from England

J. R. Poole, Derris, Inc., New York, manufacturers of derris products, returned to the United States late last month following a two-month visit in England.

Mothide Service Expands

Mothide Permanent Moth-proofing Service Co., Kansas City, moved on April 6th from their old location at 3838 Main street, to 1014 East Armour Blvd. At the present time this concern is a servicing company but plans to put in a complete line of insecticides and disinfectants later in the season. The company is composed of Messrs. George E. and Wm. M. Hannay.

Gets Disinfectant Advertising

Pur-Urn Laboratories, Inc., Milwaukee, manufacturers of disinfectants and cleaners, have appointed Burns-Hall Advertising Agency, Milwaukee, to direct their advertising account.

Curlett on McCormick Board

John M. Curlett has been elected to membership on the board of directors of McCormick & Co., Baltimore, succeeding David S. Green. Mr. Green resigned to go on the board of the newly organized McCormick Sales Co.

Bailey Heads O-Cedar

Warren G. Bailey, who for several years has served O-Cedar Corp., Chicago, as secretary and treasurer, has been elected president and general manager of that company. Heretofore Mr. Bailey has devoted much of his time to his services with the Business Research Corp., Chicago, of which he was vice-president and assistant director, but in the future he will devote his entire time to the management of O-Cedar.

Advertise Mortex

Murray & Nickell Mfg. Co., Chicago, announce that they have released an extensive newspaper campaign on Mortex, the company's moth-proofing compound. The copy, which was prepared by Frankel-Rose Co., will appear in the newspapers of the principal cities of the middle west.

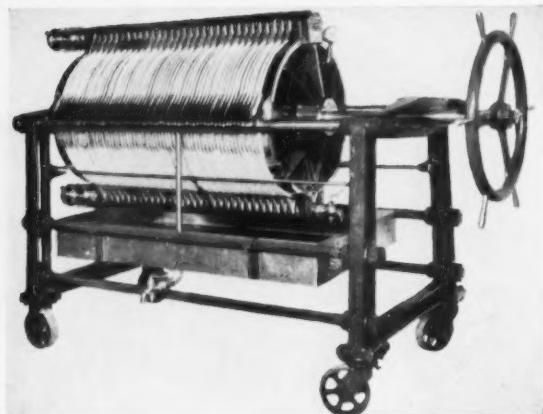
Markets New Roach Trap

Armstrong Manufacturing Co., 2035 Main street, Kansas City, Mo., has placed on the market a new improved patented roach trap which sells at a nominal price. It is said to be safe, simple and sanitary as well as very effective in destroying the roaches.

New Cattle Spray Base

Calumet Refining Company, Chicago, announce that they are now manufacturing a special petroleum base for cattle sprays. In addition to the fact that this new base is odorless many other valuable advantages are claimed. It is reported as harmless to cattle and is said to have unusual lasting qualities when applied to the animals. The specifications of this base oil, which is prepared by a high vacuum distilled double re-run

HAVE YOU A CLOUDY LIQUID SOAP?



ERTEL SUPER FILTER

• People will not buy cloudy liquid soaps and shampoos, even though they may do the work just as well. If you want to make clear, sparkling products, send us a sample of your cloudy liquid and let us show you what an Ertel Filter can do. They are built in all sizes, suitable for any capacity . . . and do an equally good job on fly spray.

ERTEL ENGINEERING CORP.

Dept. C, 120 E. 16th St. New York, N. Y.

Ertel Portable Vacuum Bottle Filler



CAPACITY 2
GALLONS PER
MINUTE

- Plug it into any light socket. Accurate. Speedy. Dependable. Economical. Adjustable handle for all types of bottles.

MANUFACTURERS OF

Disk Filters, Neutral Asbestos Filter Sheets, Portable Mixers, Portable Vacuum and Semi-Automatic Multiple Spout Vacuum, Bottle Fillers, Bottle Capping Equipment, and Stainless Steel or Glass Lined Tanks.



Uncle Sam Says:

We are specialists in
Paradichlorobenzene Products,
including

*Deodorizing Blocks
Urinal Blockettes
Moth Preventives, etc.*

A large variety of shapes and
sizes to fill practically every re-
quirement.



*Write for descrip-
tive circular and
price list.*



UNCLE SAM CHEMICAL CO., INC.

Manufacturers for the Jobber
329 EAST 29th STREET, NEW YORK, N. Y.
Established 1915

process are as follows: specific gravity, 29.9; flash point, 275°; fire, 310°; viscosity, 51 at 100°; color, 1.5. For further details regarding the product manufacturers can write the company direct or the publishers of SOAP.

Good Insecticide Year

David Lynch of John Powell & Co.'s Chicago office, which is in charge of H. J. Ahles, recently returned from a three-month trip through the South and Southeast, and reports that the insecticide trade in that area is anticipating one of the best years in its history based on indications thus far in 1936.

Restrain Franklin Employees

Franklin Research Co., Philadelphia, advises that a court decree has just been handed down in a recent action, restraining two former employees from using for their own benefit or imparting to others the secret formulae and secret manufacturing technique of the products of Franklin Research Co. These consist of various types of wax emulsions, cleaners, shoe polish, etc.

To Handle Wax Advertising

Minute Man Products Co., Hartford, Conn., has appointed the John B. Fairbairn Advertising Agency, Hartford, to conduct an advertising campaign on its "Lacquerwax," a combined liquid wax and cleaner for automobile finishes. Lee Baum has been named director of sales and advertising of Minute Man Products Co.

Guard Polish Formula

Griffin Mfg. Co., Brooklyn, shoe polish manufacturer, won the decision of Judge James C. Cropsey handed down last month in the New York Supreme Court in a case involving the "Griffin" shoe polish formula. The court also granted the firm an injunction against the 2-in-1 Shinola-Bixby Corporation and against Raymond Warburton, a chemist employed by the latter. The injunction forbids the company and

chemist from making any polish using the Griffin formula, forbids them to disclose the formula and gives the Griffin company the right to demand an accounting of all profits that the defendants may have received already from such manufacture.

Johnson Names Sales Mgr.

P. M. Petersen, who has been with S. C. Johnson & Son, Inc., Racine, Wis., for twenty-five years,



has recently been appointed general sales manager. He succeeds C. A. Armstrong, who for the last twenty-three years has been acting head of the sales department and who continues with the company as vice-president and member of the board of directors.

Sterrett in Texas

Clifford H. Sterrett, formerly of Edgar C. Murphy Co., Detroit, and William Peterman, Inc., New York, is now located in San Antonio, Texas, as vice-president of a lumber firm specializing in the manufacture of termite-proof timber, and termite proofing in building construction.

Termite Concern Moves

Scott Termite Control Co., Pasadena, Cal., has taken new quarters at 2467 Blanche St.

So-Eze Products to Expand

So-Eze Products Co., 3515 Troost avenue, Kansas City, cleaning compounds, will add a new line within the next few months. J. W. Blockter, says that his company plans on considerable expansion of their plant.

Sanitary Suppliers Meet

The Associated Sanitary Supply Distributors of Chicago held their regular monthly meeting at the Hamilton Club, April 21st. All member companies were represented. A round table discussion of problems relating to the industry was held.

Vance Best Bowler

Martin B. Vance of Givaudan-Delawanna's Chicago office won first prize in the last bowling tournament of the season for the Chicago Perfumers Association. Although bowling from scratch, Mr. Vance's three game total of 603 gave him a comfortable margin of victory.

Hockwald Moves Office

The San Francisco office of Hockwald Chemical Co. has been moved from 807 Mateo St. to 30 Bluxome St.

Rocca New President

Annual Business meeting and election of officers of the Chicago Drug and Chemical Association was held at the Chicago Athletic Assn., March 26th. The regular ticket, reported in the April issue of SOAP and which was headed by A. J. Rocca for president, was unanimously elected. Plans for the Annual Formal May Party, scheduled for May 7th in the Grand Ball Room of the Lake Shore Athletic Club, have been completed and the entertainment committee advises that there will be a fifteen-piece orchestra, a master of ceremonies and an unusual floor show.

Exterminator in New Office

St. Louis Exterminating Co., formerly at 4119 Olive St., St. Louis, has moved recently to new quarters at 3975 Ditmar St.

Bristol-Myers Profits Up

Bristol-Myers Co. earned net profit of \$2,272,700 during 1935 according to a preliminary report just issued, comparing with earnings of \$1,966,164 in the previous year.

REPEAT REPEAT REP It's the RI PEAT REPEAT REPEA **SECOND** EAT SALE EAT REPEAT REPEAT REP PEAT that REPEA T REPEAT REPEA T counts R REPEAT REPEAT REP

REPEAT BUSINESS is the basis of profit in the insecticide field—and in most fields. That's why manufacturers of modern sprays are insistent that their products should be *completely* satisfactory to the consumer. Killing efficiency is important, but other factors such as odor are vital in building up repeat sales.

With Atlantic ULTRASENE for a base, your spray will be a "natural" for repeat business. ULTRASENE is practically odorless and even more transparent than water. It is uniform and evaporates readily, leaving no oily residue. And, because it has no kerosene odor, less essential oils are required to disguise an unpleasant odor.

Join the ranks of up-to-date manufacturers who are increasing their sales with ULTRASENE. We will gladly send you liberal experimental samples for your own tests. Our technical department is always glad to assist you with your problems. Just write The Atlantic Refining Company, Specialty Sales Department, 260 South Broad Street, Philadelphia, Penna.

ATLANTIC ULTRASENE

SENCO RAT AND ROACH PASTE

Packed in attractive lithographed cans. Special deal for May and June, 1936.

1 doz. 6 oz. cans (.50c size)	\$4.00
(six cans free with each dozen)	
1 doz. 1 lb. cans (\$1.00 size)	\$8.00
(six cans free with each dozen)	

Shipped prepaid anywhere in the United States

POISON GRAINS

Effective and economical exterminators of mice

Poison Canary Seed 100 lbs	\$22.00
Mixed Poison Grains 100 lbs	\$22.00

Freight Prepaid

PHOSPHORUS PASTE FOR PESTS

A standardized Rat and Roach Paste sold in bulk to the trade.

	Prices		Prices
10 lbs.	\$4.25	50 lbs.	\$17.00
25 lbs.	9.00	100 lbs.	32.50

Freight Prepaid

SENNEWALD DRUG COMPANY, Inc.

800 Hickory Street

St. Louis, Mo.



REFINED NAPHTHALENE

CRUSHED, CRYSTALS, POWDER, LUMP, CHIPS, FLAKES

For use in the manufacture of deodorizing blocks, moth preventives and other insecticides.

ALSO BALLS, BLOCKS, TABLETS.

THE WHITE TAR COMPANY OF NEW JERSEY, INC. Phone Kearny 2-3600

BELLEVILLE PIKE

KEARNY, N. J.



Wood Building New Plant

A new and modern plant for G. H. Wood & Co., to replace the one destroyed by fire a few weeks ago, is under construction for them on their old site at 736 Dundas St., East Toronto. The Wood concern, Canada's largest manufacturer of sanitary products, suffered a disastrous fire which completely gutted the old plant, with a loss estimated at \$100,000. All records were saved, however, and the firm moved into new quarters at 1244 Dufferin St. the day following the fire. It is hoped to have the new building ready for occupancy by June 1. It will be one story larger than the old one and will be completely re-equipped with modern machinery. Business seems not to have been interfered with by the fire, as Geoffrey H. Wood, general manager, reports that March sales were 28 per cent in advance of any previous March and far ahead of the total for any previous month.



View Invisible Ray Lamps

A group of some thirty executives including representatives from various insurance companies, food processors, exterminating concerns and city health departments visited the Bloomfield, N. J., plant of Westinghouse Lamp Co., April 1, to learn more about the practical applications of the new Westinghouse invisible ray lamps. A film was shown illustrating the effect of the invisible rays on micro-organisms. Then after luncheon in the plant cafeteria, and an inspection trip through the plant, practical installations of the new lamps were described by various representatives of Westinghouse. The trip was under the sponsorship of N. K. Concannon, secretary of the Professional Exterminators Assn.

New Polish Specification

A new and slightly revised federal specification for silver polish has just been adopted by the Procurement Division of the U. S. Treasury Department. In the revised specification the sole ingredient of

type C powder polish is fixed as simply finely ground diatomaceous or infusorial earth. In the previous draft it was specified that this earth be white in color. Copies of the complete new specification, No. P.P.-571a, may be obtained for 5c each from the U. S. Superintendent of Documents, Washington, D. C.

we are advised that no action will be taken against fluoride users by the department. It is reported that the fumigant board has passed favorably on the following recommendation:

"Sodium fluoride to be permitted in restaurants in the following manner; on floors, under and behind ice boxes and behind sinks, but must not be used in a manner where it may come in direct contact with food."

If the full board passes favorably on this proposal it is expected that a public report may be expected by the industry shortly.

Glyco Products Moves

Glyco Products Co., New York, moved April 25th to new quarters at 148 Lafayette St. At the new address the office, laboratory and warehouse will be consolidated under one roof. The new telephone number is Canal 6-6510.

Parento Official Ends Trip

Eugene Barton, general manager of Compagnie Parento, Ltd., Canadian affiliate of Compagnie Parento, Inc., Croton-on-Hudson, N. Y., has just returned to the Toronto headquarters of his firm after an extensive trip through Canada which took him as far west as Vancouver. He reports that business in the western part of the Dominion is very good and there is a good prospect for betterment over the current year. Mr.

Study Fluoride Regulations

The New York City Board of Health is currently making a further study of the use of sodium fluoride as an exterminating agent, the decision to undertake this work having been made at a recent conference with members of the exterminating industry. Pending the final decision,

HOOKER PARADI



The uniformity of these clean, white crystals makes your product free-flowing, non-caking.

HOOKER ELECTROCHEMICAL COMPANY

Eastern Sales Offices: Lincoln Bldg., New York City; Works: Niagara Falls, N. Y.

Western Sales Offices: Tacoma, Wash.; Works: Tacoma, Wash.

© 6071

Beautifies

When all is said and done, there is nothing that will give a floor the same deep, mellow tones—the same rich beauty as wax.

RUBBER GLOSS floor wax is noted for the depth of its lustre and its marvelous accentuation of the color and pattern of the floor. Give your floors a few months' care with RUBBER GLOSS wax and you will experience the keen delight of seeing their beauty fully displayed.

. . . RUBBER GLOSS wax actually costs less to use than other waxes. Won't you telephone our local representative?

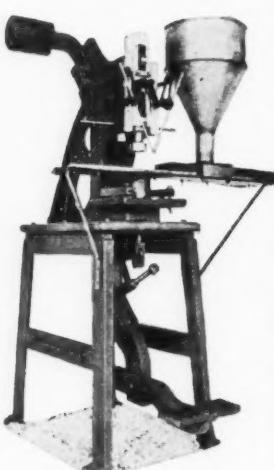
FRANKLIN RESEARCH
COMPANY

5134 Lancaster Avenue
PHILADELPHIA, PA.

Distributors in principal cities



Machine-Made
DEODORANT
CAKES and BLOCKS
are big sellers!



Make your deodorant and moth cakes with this heavy pressure foot press by the cold process and save money while you are increasing sales. A smooth, even cake will sell better because of its improved appearance and will cost less to make because this press not only cuts labor but saves 5% of your raw material. Why not let us make some sample cakes with your own para, naphthalene, etc., and submit complete information regarding cost and manufacturing process?

HOUCHIN MACHINERY CO., INC.
HAWTHORNE, N. J.

Barton will visit the New York office of the company shortly to confer with his associates in the United States.

Free Unlicensed Exterminator

Oscar Nelson of Hempstead, L. I., N. Y., pleading guilty to a charge of operating an exterminating business without a license, was freed by Magistrate Anthony Savarese in Jamaica Court on a recent appearance. According to newspaper reports, sentence was suspended when Nelson pleaded guilty with "exterminating" circumstances.

Shoots Flies with Rifle

A novel method of application of liquid insecticides has been introduced by Dr. J. F. McClendon, University of Minnesota physiologist, in classroom demonstrations. He keeps an air rifle loaded with pyrethrum concentrate at his side in the lecture room, and shoots the flies down on the wing.

Royal Cleanser Moves

Royal Cleanser Co., formerly located at 3043 Superior Ave., Cleveland, has moved recently to 2336 Canal Road.

Offers "SalvArine" Cleaner

Heider Industrial Chemical Co., Columbus, Ohio, is manufacturing a cleaning powder under the name "Pink SalvArine," for use on wood-work, tile, floors, bathroom fixtures, etc. The product sells in 6 oz., 1 lb., 3½ lb., and 8 lb. packages.

Stein Offers New Equipment

Stein Equipment Co., 426 Broome St., New York, organized two months ago to deal in used soap and chemical machinery, also offers a varied line of new equipment. At present the company is acting as selling agent for metal glass tanks, Waterville Foundry ointment mills, pony mixers, and change can mixers, Prater hammer mills and pulverizers, also for various types of mixers, bottle, tube and powder fillers, filters, etc. Additional lines will be announced as they are added.

Reilly Plant Expansion

Reilly Tar & Chemical Co., Indianapolis, plans an expansion in its plant at Fairmount, W. Va., which will involve expenditure of \$100,000.

Drug Wholesalers to Meet

The board of control of the National Wholesale Druggists Association will meet May 22nd in the New Jefferson Hotel, St. Louis, and this meeting will be followed in the next two days by meetings of several state and sectional groups of wholesalers.

S.O.C.M.A. Meets at Absecon

The annual meeting of the Manufacturing Chemists Association, in conjunction with the outing of the Synthetic Organic Chemical Manufacturers' Association will be held this year at the Sea View Golf Club, Absecon, N. J., near Atlantic City, on June 4 and 5.

Fumigating Co. Moves

F. W. Ritchie Fumigating Co., San Francisco, has moved recently to 110 Market St.

Free "Pokadot" Dispensers

Pokadot Chemical Co., Greenville Pa., recently made a 10-day offer of free dispensers for its "Pokadot" water softener. The dispenser was given with the purchase of a bottle of "Pokadot" water softener, furniture polish, or laundry bleach.

Sunray Products Moves

Sunray Products Co., Chicago, has taken new quarters recently at 15 N. Franklin St.

Louisville Exterminator Moves

Wright Exterminating Co., Louisville, has recently taken new quarters at 308 South Fifth St.

Check "Perfo" Advertising

Radiator Specialty Co., Charlotte, N. C., dealer in a cleaning fluid advertised as "Perfo," has been ordered by the U. S. Federal Trade Commission to desist from misrepresentations in the sale of the preparation. Advertisements that the cleaning fluid is not harmful or injurious to any fabric, material or color, that it will absorb spots, and does not leave a spot or ring on materials, are prohibited in the order.

To Open New Toronto Branch

Helfrich Laboratories, Chicago, manufacturers of toilet preparations, plan shortly to open a branch factory in Toronto. They have secured premises at the corner of King and Bathurst streets.

A. D. M. A. at Greenbrier

Members of the American Drug Manufacturers' Association will meet for their 25th annual convention May 4 to 7, at the Greenbrier, White Sulphur Springs, W. Va. Committee members for the meeting include the following: banquet, F. J. McDonough, New York Quinine & Chemical Works, M. N. DeNoyelles, Charles Pfizer & Co.; evening entertainment, W. D. Barry, Mallinckrodt Chemical Works, S. Barksdale Penick, Jr., S. B. Penick & Co.; ladies' entertainment, George Simon, Heyden Chemical Corp., A. A. Wasserscheid, Mallinckrodt Chemical Works; golf, Victor E. Williams, Monsanto Chemical Co., J. P. Remensnyder, Heyden Chemical Corp., Gerald S. Furman, Merck & Co.; transportation, S. Barksdale Penick, Jr., S. B. Penick & Co., James C. Chilcott, Maltine Co.; publicity, A. D. Armstrong, Fritzsche Brothers, Inc.

Hercules Moves Office

The New York offices of Hercules Powder Co. were moved April 11 to new quarters at 22 East 40th St. Walter M. Annette is their local manager.

Markets "Mikroklene"

J. W. Oats, 309 South Lawn avenue, Kansas City, representative of Economics Laboratory, St. Paul, cleaning compounds, is placing in his territory a new product known as "Mikroklene", which is a combined cleanser and sterilizer used in soda fountains and bars.

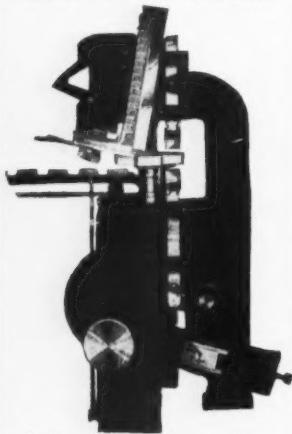
Special Offerings of

New CRUTCHERS



This Newman brand new, all steel, steam jacketed soap crutcher will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap.

Automatic JONES PRESS



Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our shops.

H-A SOAP MILL



This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls. Priced for quick sale.

New and Rebuilt SOAP MACHINERY by NEWMAN

We carry a complete line of equipment for the soap and sanitary products industry. All used equipment is rebuilt in our own shops and is guaranteed to be in first class condition. All new equipment that we manufacture such as crutchers, frames and cutting tables is of the finest material and workmanship. You can buy with confidence from Newman.

USED SPECIALS

For the Soap, Chemical, Cosmetic and Allied Trades

- H-A, 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.
- Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.
- Ralston Automatic Soap Presses.
- Scouring Soap Presses.
- Empire State, Dopp & Crosby Foot Presses.
- 2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.
- H-A 4 and 5 roll Steel Mills.
- H-A Automatic and Hand-Power slabbers.
- Proctor & Schwartz Bar Soap Dryers.
- Blanchard No. 10-A and No. 14 Soap Powder Mills.
- J. H. Day Jaw Soap Crusher.
- H-A 6, 8 and 10 inch Single Screw Plodders.
- Allbright-Nell 10 inch Plodders.
- Filling and Weighing Machine for Flakes, Powders, etc.
- Steel Soap frames, all sizes.
- Steam Jacketed Soap Remelters.
- Automatic Soap Wrapping Machines.
- Glycerin Evaporators, Pumps.
- Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.
- Perrin 18 inch Filter Press with Jacketed Plates.
- Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.
- Day Grinding and Sifting Machinery.
- Schultz-O'Neill Mills.
- Day Pony Mixers.
- Gardiner Sifter and Mixer.
- Proctor & Schwartz large roll Soap Chip Dryers complete.
- Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.
- Day Talcum Powder Mixers.
- All types and sizes—Tanks and Kettles.
- Ralston and H.A. Automatic Cutting Tables.
- Soap Dies for Foot and Automatic Presses.
- Broughton Soap Powder Mixers.
- Williams Crutcher and Pulverizer.
- National Filling and Weighing Machines.

Plant of the Holman Soap Co., Chicago, is offered for sale.
Completely equipped modern factory.

Send us a list of your surplus equipment we buy separate units or complete plants.

Newman Tallow & Soap Machinery Co.

1051 W. 35th St., Chicago, Illinois

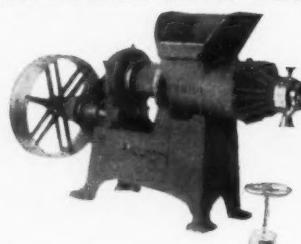
Our forty years soap experience can help solve your problems.

JONES AUTOMATIC



4 Jones Automatic combination laundry and toilet soap presses. All complete and in perfect condition.

SINGLE SCREW SOAP PLODDER



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 254 West 31st St., New York.

Positions Wanted

Soapmaker and Superintendent—Have had long experience in making all kinds of soap. Analyze any soap or soap material. Address Box No. 751, care *Soap*.

Soapmaker and Chemist—whose past record and experience qualify him for meeting highest technical requirements, desires steady employment with progressive concern. Address Box No. 749, care *Soap*.

Superintendent, factory manager wants position. Expert in kettle practice and manufacture of bar and toilet soaps, pure and filled flakes, high grade and cheap soap powders. Glycerine recovery. Address Box No. 743, care *Soap*.

Soapmaker and Chemist—with long experience making all kinds of soaps, seeks permanent connection. Address Box No. 748, care *Soap*.

Capable Sanitary Chemical Specialist—15 years' experience manufacturing disinfectants, insecticides, soaps, polishes, deodorants, etc., desires position as superintendent or chemist. Temporary work will be considered. Single, age 42, college graduate. Available at once. Address Box No. 750, care *Soap*.

Manufacturers, Promoters—soapmaker has new shampoo, also first class soapless shampoo. Satisfied with royalties or steady position. Address Box No. 733 care *Soap*.

Soap chemist with 30 years' experience. Twitcheling, treating glycerine; all kinds of household and toilet soaps, oil soaps, shaving soaps in bar, stick, liquid and powdered form especially non-hydrolyzing liquid soap for all purposes, and other money making specialties; soap for dyeing, auto soap, cosmetics, etc. Seeks position with responsible firm. Address Box No. 734, care *Soap*.

Soapmaker—good worker; 15 years' experience in the making of laundry chips, textile soaps, oil soaps, liquid soaps and shampoo bases. Wishes steady employment. Will locate any place. Salary reasonable. Address Box No. 732, care *Soap*.

Announcing the formation of STEIN EQUIPMENT CORP.

By JEROME D. STEIN
formerly of Stein-Brill Corp.

Rebuilt Special Offerings

- 1—Jones Automatic Pin Die Press.
- 3—Houchin-Aiken Empire State Foot Presses.
- 1—2 way Soap Cutting Table.
- 10—400 lb. Soap Frames.
- 20—1200 lb. Soap Frames.
- 1—10A Blanchard Mill.
- 1—Prater Hammer Mill.
- 1—65 gal. Dopp jacketed Kettle.
- 1—Soap Chipper.
- 4—Filter Presses—10" to 24" Square.
- 2—Jacketed Vertical Crutchers.
- 2—Vertical jacketed 3000 lb. Kettles.
- 6—Glass Lined Kettles, 50 to 500 gals.
- 1—Soap Slabber.
- 1—Proctor 4 Fan Soap Chip Dryer.
- 3—Plodders; 6", 10" and 12".

Send for Bulletin No. 101 giving full listings.

WE BUY YOUR SURPLUS EQUIPMENT FOR CASH.
FROM SINGLE ITEMS TO COMPLETE PLANTS.

426 BROOME STREET
Phone: CANal 6-8147

NEW YORK, N. Y.
Cable Address "MACHINEQUIP"

REBUILT SOAP MACHINERY

PRICED FOR QUICK SALE

- 1—Proctor Soap Chip Dryer
- 1—Jones automatic vertical Soap Press
- 4—3, 4 and 5 roll Steel Mills
- 2—10" Houchin-Aiken Plodders
- 1—Automatic Power Cutting Table
- 1—Broughton Mixer, jacketed
- 2—No. 10A Blanchard Mills
- 3—Soap Foot Presses
- 6—Filter Presses, sizes 12" to 30"
- 1—Granite Stone Mill, 2 roll
- 30—1200 lb. Soap Frames
- 2—Jacketed Vertical Crutchers
- 2—1500 lb. Horizontal Crutchers
- 2—Hand Power Slabbers
- 2—Hand Power Cutting Tables
- 2—Houchin Chipper

600 and 1,200 lb. Frames, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Pulverizers, Grinders, Evaporators, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 16)

WE BUY AND SELL FROM SINGLE ITEMS
TO COMPLETE PLANTS.

STEIN-BRILL
CORPORATION

183 VARICK STREET
Phone:
WALKER 5-6892-3-4

NEW YORK, N. Y.
Cable Address:
"BRISTEN"



We manufacture a complete line of high quality waxes for the jobbing trade, including no-rubbing liquid wax, regular type liquid wax, powdered wax, paste wax and also furniture polish. These products can be supplied in bulk, packaged under the Windsor label or with your own label which we supply.

WINDSOR
WAX COMPANY
53 PARK PL. New York N.Y.
factory
611 Newark St. Hoboken, N.J.
Manufacturers of
WAX PRODUCTS EXCLUSIVELY

PALMER DISPENSERS

The new "TIPOWDER" dispenser (at right) is positive in operation, no springs or mechanical parts to get out of order. Tilting dispenser delivers predetermined quantity of soap—wasteful continuous flow absolutely impossible. Tamper-proof, easily cleaned. Metal parts chrome plated—black china, opal or clear crystal glass bowl.



Palmer SUPER-SERVER (left)—priced low, has no equal in value. Metal parts of stainless chrome alloy. One piece bracket in satin chrome-like finish. Valve parts easily removed for cleaning or replacement. Crystal glass decagon bowl, black enameled cap. Large 1-inch opening makes filling easy. Lowest priced push-in dispenser—yet neat, compact, durable.



Palmer
PRODUCTS INC.
WAUKESHA, WIS.
Adjacent to Milwaukee

Write for new catalog on complete Palmer line of soap dispensers; janitor and sanitary supplies, maintenance materials and equipment.

F. & S. Quality Colors for TOILET SOAPS LIQUID SOAPS TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.
205 FULTON STREET
NEW YORK, N.Y.
Import—Manufacture—Export

**SPECIALTY
SOAP PRODUCTS**

- Liquid Soap Base
- Potash Oil Soap
- Liquid Soap
- U. S. P. Green Soap
- U. S. P. Cresol Compound
- Coal Tar Disinfectants
- Pine Oil Disinfectants
- Insecticides
- Liquid Floor Wax
- Auto Soaps
- Shampoo
- Pine Oil Soap
- Shampoo Base

We manufacture for the trade only

HARLEY SOAP CO.,
2852 E. Pacific St.,
Philadelphia, Pa.

Ask for samples
of above specialty
bulk products.

Positions Open

Salesmen—fine line of soaps, cleaners, polishes for old reliable manufacturer. Liberal commissions paid weekly in full. Baum's Castorine Co., Rome, N. Y.

A Prominent Manufacturer of liquid soaps, disinfectants, deodorizing cakes, etc., has an opening for a dependable sales representative. Address Box No. 747, care *Soap*.

Salesmen now calling on hotels, restaurants and clubs to sell book matches. Only someone successfully selling these trades now need apply. Address Box No. 745, care *Soap*.

Miscellaneous

Wanted—Direct representation for the sale of toilet soaps, shampoos, insecticides, disinfectants, and allied products by a firm operating the leading wholesale and retail stores in Syria. Would require sole agency for that country. If you are interested in sale of your products through our stores, may we suggest that you send us samples f.a.s. prices, packing, etc. Address Bechara & Metni, Rue Weygand, Souk Tawile, Beirut, Syria.

Volcanic Ash—Mined and refined by Mid-Co Products Co., 238 Railway Exchange Building, Kansas City, Mo., operators of plants in Oklahoma and Kansas. Samples and prices on carlots on request.

Floor Brushes—We manufacture a very complete line. Catalogue sent upon request. Flour City Brush Company, Minneapolis, Minn., or Pacific Coast Brush Co., Los Angeles, Calif.

Distributors—We are manufacturers of metal, silver, stove, furniture polishes and no-rub wax. Also complete line of Bar Room cleaning materials. These can be supplied in bulk or packaged under our or your own label which we supply. The Slick-Shine Co., Inc., Newark, N. J.

For Sale—Sperry Filter Press, 18" type C. S. with 6 No. 41 Pyramid Surface Plates, 7 No. 42 Frames 1" thick. Cost \$230. Used very little, guarantee in first-class condition. Address Box No. 744, care *Soap*.



A Complete Line for Manufacturers of Soap and Disinfectants

Our broad purchasing and selling experience over a long period of years has established us as headquarters for the complete line of raw materials used by the manufacturer of soaps and sanitary supplies. We are constantly in touch with worldwide markets for chemical products at all times, and invite you to make use of our facilities in checking market developments.

Arsenic	Naphthalene (Moth Flakes and Balls)
Paradichlorobenzene	Soda Fluoride
Pyrethrum—all forms	Methyl Salicylate
Caustic Soda	Carbon Tetrachloride
Essential Oils	Carnauba Wax—all grades
Oil of Myrrhe	Soda Ash

H. H. ROSENTHAL CO., INC.

25 East 26th Street

New York, N. Y.

Tel.: AShland 4-7500

Cable Address: RODRUG

REBUILT SOAP MACHINERY

SPECIALS

Machinery from former plants of National Soap Powder Co., A. W. Barnes Soap Co., and Pennsylvania Soap Co.

- 1—Allbright-Nell 4'x8' Cooling Roll, with top feeder roll, scraping knife.
- 4—5000 lb., 1500 lb., 1000 lb., Jacketed Vertical Crutchers.
- 2—1500 lb. Horizontal Crutchers.
- 1—Steel Soap Kettle, 5' dia. x 10' high.
- 1—Houchin 400 lb. Amalgamator.
- 4—Houchin Soap Plodders, 8" and 10".
- 2—Ruchmann 4-roll inclined Granite Mills, 18"x24", motor driven.
- 1—Broughton 1200 lb. Soap Powder Mixer.
- 2—Tabor Soap Pumps.
- 4—Houchin 4 and 6-knife Chippers, 20".
- 1—Houchin Soap Foot Press.
- 1—Houchin 1500 lb. Power Slabber.
- 1—Houchin Hand Slabber.
- 2—Houchin 2-way Soap Cutting Tables.
- 1—Jones "A" Automatic Soap Press.

1—Proctor and Schwartz Soap Chip Dryer, steel frame, 7-section, 1—cooling section, complete with 5-roll P. & S. Mill. Located on Pacific Coast.

MISCELLANEOUS—Soap Frames, Kettles, Mixers, Pony Mixers, Powder Fillers, Labelers, Wrappers, Tanks, Pumps, Boilers, etc.

Send for Latest Bulletin.

CONSOLIDATED PRODUCTS CO., INC.
15-21 Park Row

New York, N. Y.

BArclay 7-0600

We buy your idle Machinery—Send us a list.

for low cost in para block manufacture



These two practical machines are all you need to produce high quality para blocks or cakes. The small machine will thoroughly mix all ingredients. The large machine will compress the mixture into any shape dies can give.

In addition, the mixer can be used on other dry products such as roach powder, cleansers, bath salts, etc. It will also give a smooth, soft and velvety texture to creams.

The hand lever press has more power than cheap foot presses.

Inexperienced operators can rapidly turn out fine looking blocks. Send us some of your material and let us show you some specimen cakes. The press will save from 10% to 20% over the hot process.

HUBER MACHINE CO..

265 46th St., Brooklyn, N. Y.

Makers of Good Soap Machinery for Forty Years



**Spot or
Futures**

**TEASEED
OIL**

MURRAY
OIL PRODUCTS CO.
INCORPORATED
21 WEST ST., NEW YORK



**INDEPENDENT
MANUFACTURING CO.**
Bridesburg P.O.
Philadelphia, Pa.

FUMERAL PRESSURE SYSTEM
CONNECTS TO STEAM OR
AIR PRESSURE LINE



Patented
Sept. 18, 1934
Additional
Patents Pending

FUMERAL PRESSURE SYSTEM
Does a Thorough Job..... INEXPENSIVE — EFFICIENT — ECONOMICAL

- The effectiveness of any good spray solution depends upon the efficiency of your spray equipment. Wet sprays are not efficient. It takes a minimum of 30 lbs. (steam or air pressure) to diffuse spray solutions. THE FUMERAL INSTANT DIFFUSER instantly charges the entire room. No insects, flies, cockroaches, ants, moths or germs have a chance to escape. • Connects to any steam or air line. • Turn on the valve and in 4 minutes the operation is completed. • No electricity to fuss with. No moving parts. Nothing to get out of order. FUMERALS stay sold. Simple — Inexpensive — More Efficient and Most Economical. Anyone can install it. Various brands of insecticides, germicides, bactericides, deodorants, disinfectants and perfumes all work well in the FUMERAL INSTANT DIFFUSER.

FUMERAL COMPANY, RACINE, WIS.
Manufacturers of Stationary and Portable Diffusers
Sanitary Consulting Engineers



For Sale: 3 Speed upright and horizontal rebuilt machines for mixing purposes. Sander Supply Co., 47 N. 3rd St., Phila., Pa.

Wanted: Will you do something to help out in the work of a free camp for poor children? You do not need to contribute money but can you donate a case or a few packages of toilet soap, laundry soap or soap powder to help out in this good work? Even a few dozen bars of soap will help. Will you tell your shipping clerk to send a small box of your product to William Buettner, 2131 New York Ave., Brooklyn, N. Y.? It will certainly help in the work for these poor kids.

Formula—Soap cleanser for walls, woodwork, etc. finest product of its type. Has met with some success locally. Would like to arrange with manufacturer to take over manufacture and sale in other district. Address Box No. 683, care *Soap*.

Wanted—Back copies of *SOAP*—March 1931 and May 1933. Any person having duplicates not in use, please send to Box No. 692, care *Soap*.



MIXING EQUIPMENT COMPANY, INC.
1050 Garson Avenue Rochester, N.Y.

Representatives in all principal cities
New York Office—368 Broadway

*High cost of Lavender
and the Fine Quality of
our product has won
many fine friends for*

Lavender L Parento at \$4 per lb.

*Write for your
sample to-day*

Compagnie Parento, Inc.
CROTON-ON-HUDSON, N.Y.

NEW YORK CITY DETROIT CHICAGO
LOS ANGELES SAN FRANCISCO
SEATTLE PORTLAND, ORE. TORONTO

LIQUID TOILET SOAP UNDER PRESSURE

Anhydrous Contents from 15% to 40%

Our liquid toilet soap is manufactured under a pressure of 50 lbs. in order to secure complete saponification of the Cochin Cocoanut Oil and Potash. Pure oil alone is used, nothing being extracted, and it is as free from impurities as modern science and chemistry will permit.

May we send you sample?

*

A COMPLETE LINE OF PINE OIL SOAPS

Anhydrous Contents from 18% to 65%

The finest grade of pine oil soap that is possible to produce is manufactured from only the highest grade undiluted raw material. Our pine oil cleaners will wash and rinse clean without leaving streaks. They have a controlled free alkaline content of less than .1 of 1%. (Quality is considered before price.)

E. A. GERLACH COMPANY
9th AND FORD STREETS
BRIDGEPORT PENNA.

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 132, for page numbers, "Say you saw it in SOAP."

ALKALIES

Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

Eastern Industries
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Innis, Speiden & Co.
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Philadelphia Quartz Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies
Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Merck & Co.
Monsanto Chemical Co.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)
American-British Chemical Supplies
Baird & McGuire, Inc.
Barrett Co.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrie
Pylam Products Co.

CONTAINERS and CLOSURES

American Can Co. (Tin Cans, Steel Pails)
Anchor Cap & Closure Corp. (Closures & Bottles)
Capstan Glass Co. (Bottles)
Continental Can Co. (Tin Cans)
Hinde & Dauch (Corrugated Fibre Products)
Maryland Glass Corp. (Bottles)
Salem Glass Works (Bottles)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products, Inc.

ESSENTIAL OILS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Felton Chemical Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

(Continued on page 130)

BULK AND PRIVATE BRAND PRODUCTS

Baird & McGuire, Inc.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Flori Mothproofing Method
Franklin Research Co.
Fuld Bros.
E. A. Gerlach Co.
Harley Soap Co.
Koppers Products Co.
Kranich Soap Co.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Uncle Sam Chemical Co.
T. F. Washburn Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American-British Chemical Supplies
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.

RAW MATERIAL AND EQUIPMENT GUIDE

(Continued from page 128)

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MACHINERY

Battle Creek Wrapping Machine Co. (Packaging Machinery)
Ertel Engineering Corp. (Filters, Mixers, Bottle Fillers)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Manton-Gaulin Mfg. Co. (Homogenizer)
Mixing Equipment Co. (Mixers)
Package Machinery Co. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
Western Precipitation Co. (Multicloners)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.
Stein Equipment Corp.

MISCELLANEOUS

American Colloid Co. (Bentonite)
Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Chemical Co. (Fluorides)
General Naval Stores Co. (Pine Oil-Rosin)
Glyco Products Co. (Synthetic Waxes)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Merck & Co. (Lanolin)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)
Sennewald Drug Co. (Rat and Roach Paste)

OILS AND FATS

T. G. Cooper & Co.
Eastern Industries
Independent Mfg. Co.
Industrial Chemical Sales Co.
Leighorn Trading Co.
Michel Export Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Orbis Products Corp. (Stearic Acid)
Wecline Products Co.
Welch, Holme & Clark Co.

PARADICHLOROBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.

P. R. Dreyer Inc.
Felton Chemical Corp.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

PETROLEUM PRODUCTS

Atlantic Refining Co.
O'Connor & Kremp
Sherwood Petroleum Co.
L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrethrum Extract,
Derris Products

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H. H. Rosenthal Co.
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Eagle Soap Corp.
Fuld Bros.
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Standard Silicate Co.

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Powdered aluminum	Waterless soap	Ethylene dichloride
Drain pipe solvent	Polish and mop cloths	Ethanolamine
Sodium bisulphate	Fly spray	Ethanolamine soaps
Moth proofing chemical	Moth tablet	Bulk waxes
T.S.P.	Tablet-making machine	Ant exterminating powder
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Bleached montan wax	Feldspar	Powdered borax
Fluorides	Presses	Kaolin
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